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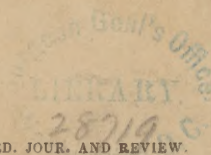
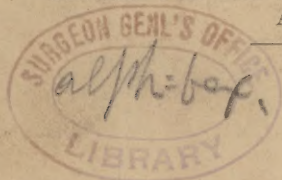
# SANITARY CONDITION OF NEW-ORLEANS,

AS ILLUSTRATED BY ITS

## MORTUARY STATISTICS:

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BY J. C. SIMONDS, M.D.

REVISED FOR THE CHARLESTON MEDICAL JOURNAL  
AND REVIEW.

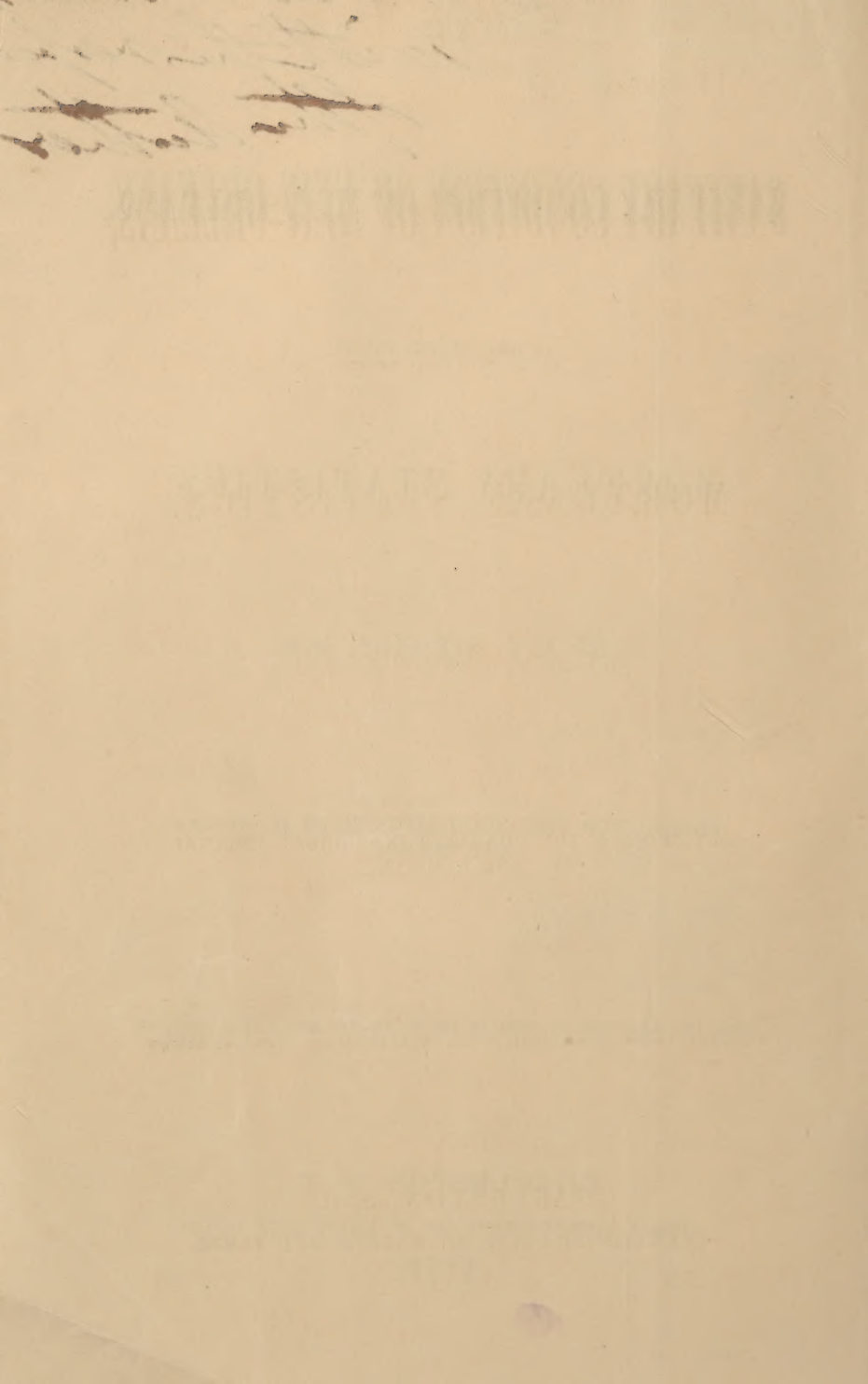


FROM THE SEPTEMBER NO., 1851, OF THE CHARLESTON MED. JOUR. AND REVIEW.

CHARLESTON, S. C.:

STEAM POWER-PRESS OF WALKER AND JAMES.

1851.









# MONOGRAPH.

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## THE SANITARY CONDITION OF NEW-ORLEANS.

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### PREFATORY NOTE.

A large portion of this paper was read to the Physico-Medical Society of New-Orleans, and afterwards, at its request, laid before the public in the Lyceum Hall. This will account for its presenting the form of an address to the citizens of New-Orleans. It was published in part in Fenner's Southern Medical Reports, and is now, after a careful revisal, and with considerable additions, submitted to the readers of the Charleston Medical Journal, with the hope that a sufficiency of matter of general interest has been introduced to render it worthy of more than merely local notice.

Two years ago, I attended a meeting of the American Medical Association, which was held in Boston. I there found that the subject of sanitary reform was exciting considerable attention, and that this was based, as it always must be, upon statistical investigations into the actual and comparative number of the births, marriages and deaths, in different localities. In my intercourse with various persons there and elsewhere, I found that New-Orleans enjoyed a very undesirable reputation of being one of the most unhealthy localities in the United States. I knew that here we thought our city very healthy. My colleague on that occasion, who had long been a resident of this city, did not hesitate to avow his opinion of its general salubrity. In reply to an attempt to prove its unhealthiness by a reference to the very violent epidemic of 1847, he said that *only* about 3,000 died of yellow fever during that year; and I heard the remark afterwards quoted as a most astounding difference of opinion regarding the value of human life. I then proposed to myself to undertake the investigation of this question, with the determination to set it, if possible, finally at rest, and with the hope of being able to convince the world, by an array of unquestionable statistical details and impregnable arguments, that it had done injus-

tice to New-Orleans, and that our city was not the Golgotha which it was every where represented to be. The subject had not been pursued long, when I found that we were laboring under a delusion, and that we had long deceived ourselves regarding the salubrity of our city. This only urged me to more extensive researches, and a more thorough examination of the subject, that I might ascertain the causes of this great mortality, and determine if it could be explained consistently with the theory of the salubrity of New-Orleans.

The difficulties encountered in the pursuit of this investigation have been very great. Authentic data were obtained with the greatest difficulty;—at times repulsed, because not clothed with official authority, that would enable me to demand the information desired;—in general meeting with courtesy at the hands of those from whom the data were to be obtained, my researches have been facilitated by the use of pens and paper, and the liberty to work out for myself what I desired, under the cold and criticising eyes of those who probably regarded me with distrust, as half a madman, for endeavoring to collect information that was not directly convertible into dollars and cents.

After these difficulties were surmounted, and the necessary data were collected, the labor of thoroughly digesting and analysing such multifarious materials was vastly greater than any one of my hearers can possibly conceive. These difficulties have been surmounted—this labor has been performed—and all the apologies for the great number of deaths, and the arguments in favor of the salubrity of New-Orleans, have been thoroughly examined and carefully considered. The conclusions to which I have arrived, have not been favorable to the opinion here entertained, but have justified the worst opinion existing abroad, regarding the sanitary condition of our city. Shall these conclusions be published to the world? shall they be uttered here? Here, if anywhere, the subject should be agitated. But who will heed? who will believe statements directly conflicting with the general sentiments of the community, and apparently injurious to its best interests? A simple love for the truth would at once decide in favor of its unreserved publication. But when I scrutinize the hygienic regulations of the city, to see if they be susceptible of amelioration, and when I decide that a certain portion of the deaths annually occurring here might be prevented by a proper sanatory system, every sentiment of humanity—every impulse of philanthropy, and even the dictates of self-interest, decide in favor of their promulgation in the most glaring colors that truth will justify.

It is constantly asserted and generally believed, that it will injure the



prosperity of New-Orleans to admit, in the public press, that it is an unhealthy city.\* This assertion I do not believe, but feel well assured that an honest statement of the truth with regard to the health of the city, would ultimately promote its true interest, and permanent prosperity. At present, the truth is so well known abroad, and so studiously concealed at home, that the statements of the press are unheeded and disbelieved. It is time to adopt a different policy: to direct our attention to an investigation that will determine the truth, regardless of its influence upon opinions abroad, and to commence endeavoring to improve the health of the city.

If New-Orleans can only be sustained by a concealment of the truth, and a criminal immolation of unsuspecting victims on the altar of Mammon, the sooner it falls the better. If our commercial prosperity depends upon the reiterated assertion of a falsehood, it has but a slender basis, and must ultimately be lost. If it be necessary to hang out false lights, to allure the unwary to destruction, that we may gloat upon their

\* The following extract from the Report of Lemuel Shattuck, Esq., on the census of Boston, is so good in itself, and so pertinent to the subject, that none can object to its insertion here:—

"No subject is more intimately connected with the prosperity and happiness of a people, than the degree of public health that they enjoy. Some places and some circumstances are known to be more favorable than others to the development and prolongation of the vital energies of man; and it is a matter of the greatest moment to the whole population collectively and to each one individually, to know what facts exist in the place selected for a place of residence, which influence its character in this respect. There is a mode by which all this information may be obtained; and by which the force of mortality pressing upon a people, may in some degree be weighed and measured. This mode is an accurate enumeration of the number and ages of the living, an accurate registration of the births, and the localities, circumstances and causes of death; and an intelligible abstract of these facts. \* \* \*

We are aware that objections exist against inquiries of this kind—most people being satisfied with the generally received opinion, that 'no place is more healthy' than the one they live in. We have also been told that this is a subject which might be interesting to a medical man, but not to the people generally! Others have objected to any investigations, which might show one section of the city to be more healthy than another, because it would *impair the value of real estate!* It has, however, appeared to us, that if facts do exist, which show any section to be unhealthy, they should be made known, that the lives, the health, and the happiness of our fellow citizens may be preserved; and that the suffering, and public and private burdens which their premature sickness and mortality occasion, may be averted. In proportion as we view *human life*, with all the manifold consequences of its preservation, to be more valuable than the few dollars and cents, more or less, which a landlord may receive from a tenant in an unhealthy locality, in the same proportion should we value the exhibition of facts which have a bearing on this subject. The private, social, or public consequences of sickness and mortality, cannot be measured by money. This is a matter of great magnitude, and demands a far more extended examination and discussion than can be given in this report. Compared with it, all other investigations are unimportant. It concerns ourselves, our health, our existence; and the persons, the health and existence of all that great mass of human beings that congregate in this growing, prosperous city."

—Report, pp. 136-8.

remains like beasts of prey, then can we but wish success to every enterprise, calculated to divert the course of trade to more honest and more honorable channels. Such, however, is not the case. New-Orleans possesses natural advantages, that only require the aid of vigorous hands and honest hearts to attract as strong a tide of immigration, and as great a proportion of the commerce of the country, as she has ever yet received. Do these incorrect and dishonest assertions add one iota to her prosperity? Who credits or acts upon them? Go out of the city of New-Orleans and find the man who believes them. They deceive nobody but ourselves. The press and the people may reiterate the assertions, but unsupported by reliable statistics, and contradicted by private information, they possess no weight abroad.

What then shall be done? Cease to deceive ourselves, and proceed earnestly to seek the truth, determined to embrace it when found, and hold it up for the inspection of all who are interested. Do not any longer say, that the deaths occur in the Charity Hospital—that they are of poor immigrants, who are unaccustomed to the climate—that they are due to the want or imprudence of strangers and the unacclimated, and consider this a sufficient apology for a high rate of mortality; commence immediately an investigation into the facts, and an examination of the causes of the prevalence of disease, and proceed vigorously to remove them. Re-organize your sanitary corps, and revise your sanitary regulations; compel your Board of Health to do its duty, and to insist upon the performance of duty by all of its officers and dependants; examine the condition, and study the workings of your hospital systems; institute such new police regulations as may be found necessary, and consider the protection of human life against disease and crime, as paramount in importance to every other question. Until this be done, New-Orleans will always remain unhealthy. When the citizens of New-Orleans are convinced of a truth, admitted by all the rest of the world, viz: that New-Orleans is unhealthy, they will endeavor to remove the causes of disease; but until they be assured of this, it is vain to urge the necessity of an extension of water privileges, a system of sewers, the proper paving of the streets, and the prompt removal of filth. Remove the causes of her insalubrity, and her progress in population, wealth and commercial greatness, will be more rapid than it has ever been.

Sickness and death is the lot of every organized being; but observation and experience have shown that the amount of sickness, and the proportion of deaths, differ widely at different epochs of life, and in different localities. Though many of the causes of disease and death



are still veiled in obscurity, some have been so clearly demonstrated that but little light can hereafter be thrown upon them. Many of the causes that are known, are removable by the application of the knowledge and skill of man. By every test that can be proposed, it may be proved that in certain cases the amount of sickness and the proportion of deaths have been diminished by the adoption of proper sanatory measures. The following extract from the Sanitary Report of Massachusetts, (pp. 248, 249,) will serve, for the present, to prove this:—

“Sanitary improvements in England first began in the navy. It is observed, in a sanitary report, that so dreadful was once the condition of the royal navy, that, in the year 1726, when Admiral Hosier sailed with seven ships of the line to the West Indies, he buried his ships’ companies twice, and died himself of a broken heart. Amongst the pictures there presented,—as in ‘Anson’s voyages, 1740–’44,’—were those of deaths to the amount of eight or ten a day, in a moderate ship’s company;—bodies sown up in hammocks, and washing about the decks, for want of strength and spirit on the part of the miserable survivors to cast them overboard. X X

“In 1779, the proportion of deaths in the royal navy, was 1 in 8 of the employed; in 1811, the proportion was 1 in 32 of the employed; and from 1830 to 1836, the average number of deaths annually, was 1 in 72 of the employed. And in this calculation, the deaths from all sources are included;—from wounds, drowning and all other external causes, as well as from disease. From the latter source, the deaths were in proportion of 1 in 85 of the number employed, annually. These figures are eloquent beyond any words that can be employed. They excite—as they are fitted to excite, especially at first sight—our wonder. They ought, however, to occasion more of gratitude than astonishment, because the causes of the difference are not difficult to determine, and because almost all that appears in favor of recent times, is due to the superior intelligence and humanity infused into the administration of the navy.

“Equally good effects have followed the sanitary reforms in the British army. The mortality among the British troops at Hong Kong, in 1842, was at the rate of 19 per cent., or 190 in 1,000; in 1843, it was 22 per cent. or 220 in 1,000; and in 1844, it was  $13\frac{1}{2}$  per cent. or 135 in 1,000. But during these years the garrison was very badly accommodated; in 1845 their accommodation was very much improved, and the mortality diminished to  $8\frac{1}{2}$  per cent. or 85 in 1,000; and since that time the troops having been lodged in what may be termed, from their excellence, “model barracks,” their mortality at once dropped down to  $2\frac{1}{2}$  per cent., or 25 in 1,000; at a rate not much exceeding that of stations estimated healthy. Since the adoption of the measures proposed by Dr. R. Jackson, \* \* \* the diminution in the rate of sickness and mortality has been such as to justify the assertion, that, if this measure had been carried into effect at the time it was first urged by him, the lives of from 8,000 to 12,000 men would have been saved;—a sufficient lesson, one would think, to our

authorities, not to delay the introduction of improvements which experienced medical officers concur in urgently recommending."

This shows that efficient measures will promote the public health; and it is equally susceptible of proof, that sickness and death, in an increased degree, and beyond that which is natural to man, and normal to the locality, is the penalty that every community must pay for the neglect of those sanitary requirements that are peculiarly adapted to its situation. The penalty is a costly one, and estimated in any way in which it can be turned into dollars and cents, would be found to exceed, by far, the most lavish expenditure for the most costly hygienic appliances. The cost of the preventible sickness and deaths that have occurred in New-Orleans for the last ten years, doubtless exceeds that of the total public expenditure on all other accounts. The persons who have died, and whose deaths should have been prevented, would have placed ours as the third city of the Union, and their lives would have enriched us vastly more than the deaths of the few—very few—who have been unwarily attracted here by the assertions of the salubrity of the city. The cost of the Charity Hospital alone, during eight years, (1842-'49,) has amounted to nearly half a million of dollars. The cost of your Orphan Asylums I do not know—but it must be enormous. To these items should be added a certain portion, which cannot be estimated, of the cost of your police system and judiciary department; for who can tell how much of the crime has been due to the poverty caused by sickness and death, widowhood and orphanage, and the want of parental control and education? The number of beggars upon your streets has, of late, increased to such a degree, as to have become a public nuisance, and your public press begins to demand effectual measures for its suppression. None can say how much of this pauperism is the result of the prevalence of disease, but especially of cholera, which is well known to carry off a larger proportion of those in the prime of life than of any other class. Public opinion should commence by following out this pauperism to its cause; and if it be found to depend, in a considerable degree, upon the mortality of the city, it is evident that the most effectual means for its suppression will be the improvement of our sanitary condition.

An accurate investigation into the vital statistics of any region of country, involves but few, though very precise and definite, principles; but it requires a very large number and an important body of facts, constituting the data to which the principles are to be applied. The facts requisite are, first, the total number of the population, as well as the number of the different classes of the community, according to sex, age,



place of birth, length of residence, pecuniary circumstances, or social condition. Second, the number of births from this population, specifying the sexes, still-births, etc. Third, the number of deaths, and their causes, as respects not only the total population, but also that of the different classes of the community, viz, the sexes and ages. These data being accurately known, the vital statistics of a community would involve a very simple arithmetical calculation, which, however, would clearly indicate the actual and relative condition of the different classes of the community. Without a complete system for the registration of every birth, marriage, and death, the vital statistics of every locality must be imperfect; but with the register of the dead, and the census returns, an approximation may be made sufficiently accurate to indicate generally the degree of salubrity of different localities.

These data, viz : the number of the dead, and that of the living population, may be obtained ~~from~~ almost all cities, and must be assumed to be correct until errors are specifically pointed out, and fully proved.\* *for* The ratio of the number of the population, and the number dying during a certain year, constitutes the mortality for that year, which, of course, will not so correctly express the degree of salubrity of any place as the average of several successive years; and in comparing different localities, the greater the number of years of which the average is taken, the more correct will be the comparison. While I have the mortuary statistics of other cities, extending through a sufficient number of years, to deduce a fair and correct average mortality, I have only been able to obtain for New-Orleans a continuous record for four and a third years; which must, therefore, for the present, be adopted as approximating to the true mortality of this city.

Population of New-Orleans :—

City census	March, 1847,	-	94,526
State “	August, 1847,	- -	79,503
United States do.,	July, 1850,	-	116,407

Population of Lafayette by the United States census :—

1840	-	-	-	-	-	3,207
1850	-	-	-	-	-	13,350

The census of the city of New-Orleans was taken by the city authorities in March, 1847, and amounted to 94,526. In the same year, in August, it was taken by order of the State, and amounted to

\* It is worthy of remark, that the officers are sworn to perform their duty, and to take the census as correctly as possible, and that, being paid in proportion to the number obtained, they have no reason to *underrate* the population.



79,503. The United States census, nominally referred to July 1st, 1850, but really completed during the past winter, will not differ much from 116,407. The mean of these three censuses, is 96,812, which may be fairly considered the average population of New-Orleans during the four and one-third years of which the deaths are known. Let it not be said that this underrates our true population. If the data furnished by the censuses are sufficiently correct to constitute the basis of taxation, of representation, and of the apportionment of the school fund, etc.,—if these censuses approximate sufficiently for all political and politico-economical purposes, why impugn their correctness when applied to the more important uses of the statist, in determining the hygiene and sanitary condition of the city?

I have not been able to obtain the census of Lafayette, as taken by the State in 1847, but if we assume that the population increased uniformly from 1840, the total of both cities would average, for the last five years, 106,885. Referring the population of New-Orleans, as taken by the city in March, 1847, to the year 1846, the following table will show the population for each of the last five years:—

Estimated population of New-Orleans and Lafayette:—

		<i>New-Orleans.</i>		<i>Lafayette.</i>		<i>Both.</i>
1846	-	94,526	- -	7,546	- -	102,072
1847	-	79,503	- -	8,703	- -	88,206
1848	-	90,276	- -	10,037	- -	100,313
1849	-	102,509	- -	11,575	- -	114,084
1850	-	116,407	- -	13,350	- -	129,757

The mean population of New-Orleans during this period is, therefore, 96,644; of Lafayette, 10,242; and of both cities, 106,886. We must now see what number of deaths occurred among this population.

*Interments, as shown by the Dead-Books of the Board of Health of New-Orleans, and the Sexton's Book for Lafayette Cemetery.*

#### BOOKS OF NEW-ORLEANS BOARD OF HEALTH.

1846, August 30th, to January 2d, 1847,	-	-	1,489
1847, January 2d,	-	-	7,515
1848,——— to April 30th,	-	-	1,915

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9,430

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From the tables of diseases, - - - 10,919

1848, May 1st, to 1849, April 30th,	- -	9,346
1849, May 1st, to 1850, April 30th,		7,352
*Deduct Lafayette, Jan. 1st, to April 30th,		173

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7,179

† 1850, May 1st, to December 31st,	- - -	5,488
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22,013

## LAFAYETTE CEMETERY.

1846, September 1st, to December 31st,		281
1847, January 1st, to Do.	- -	1,654
1848, Do. Do.	- -	784
1849, Do. Do.	- -	1,716
1850, Do. April 30th,	- -	418

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4,853

From examination of names,	- - - -	26,866
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37,785

The details of the preceding table are given, that the amount may be verified, if desired; and it is arranged to agree, as nearly as possible, with the arrangement of the records. For the interments in the Lafayette Cemetery, I am indebted to the courtesy of Mr. Hicks, the sexton. It must be observed, that of the 37,785 deaths during the four and one-third years included in the table, 26,866 are directly obtained from the recorded names of the dead; the other 10,919 are from the tabular statements of disease; but all are derived from the manuscript records, to avoid the danger of typographical errors. The number of deaths is, therefore, certainly not over-estimated, but is known to fall short of the truth, inasmuch as it does not include the deaths in the Hebrew cemetery in Lafayette, (except for eight months,) nor the bodies of those dying in the Charity Hospital, where two are frequently placed in the same coffin, and only one reported to the Board of Health.† The total,

\* Those from New-Orleans being only reported.

† Includes all interred in Lafayette.

‡ Without attempting, at this time, to estimate the additions to be made on these accounts, I will simply state that the report of the Board of Health, for 1849, shows that 2,745 died in the Charity Hospital, while only 2,304 were interred in its cemetery. A small portion of the difference were interred by friends in other cemeteries. In 1850, there died 1,884 in the hospital, while 1,446 were interred in its cemetery, according to the report of the Board of Health.

used for statistical purposes  
never a portion of those

however, approximates to truth, and no more is required to show the fearful mortality of New-Orleans. We must next calculate the average annual mortality for this period, viz., the last four and one-third years.

The total of the annual population for four years, with one-third of the population for 1846, amounts to 466,384; the deaths amounting to 37,785, would therefore give, as the average annual mortality of New-Orleans and Lafayette, 8.10 per cent., or 1 in every 12, nearly. If we take the number given by the United States census, as the average population of the entire period, the mortality would be reduced to 6.7 per cent. Even if we were to take the highest numbers that have ever been obtained as the average population for the entire period, viz., for Lafayette, as above, and for this city, as taken by its authorities in February, 1851, *including one thousand added by order of the Council*, it would only amount to 135,301: and the mortality would be reduced to 6.4 per cent., a number sufficiently high to prove a greater mortality than that of any other city, but still far below the truth. In order to know whether this mortality be excessive, let us see what the statistics of other cities show.

I here present the mortality of the cities of the United States, carefully calculated by myself from authentic data. The data, the principles of the calculation, and the authorities, will be hereafter published, the result only being here given.

*Average Annual Mortality of various Cities of the United States.*

Boston,	39 years,	1811 to 1849,	- -	2.4572
Lowell,	13 "	1836 to 1848,	- -	2.1194
New-York,	45 "	1805 to 1849,	- -	2.9622

The following note from Dr. McGibbon, one of the physicians of the Charity Hospital, confirms my statement, and furnishes important statistical details of a department of which no other records have been preserved:

"The number of women delivered in the Charity Hospital, between the first of April and the first of November, 1850, was seventy-five. Three of these had twins: making the number of children born there in that period, seventy-eight; of this number there were thirty-three males, and thirty-seven females: the sex of the rest was not noted. Ten of the seventy-eight were still-born, and of this number the greater part were premature births; twenty-one were cut off between the first and ninth day, and, with but a few exceptions, all these died with Trismus Nascantum.

If we include the children still-born, this will give the large number of thirty-one, which is not far from being one-half of the children born within that Institution, in that period: or if these be excluded, we have still a mortality exceeding thirty per cent., occurring at that early period of infantile life.

As no record is kept in the Hospital books, of the children, who, born in the Institution, die there, so there is no reason to believe that any of the above deaths were ever inserted on the mortality bills of the city.

The custom with the Hospital is to place these bodies in a coffin with a larger one: the latter alone being entered in the sexton's book at the cemetery. This is done to lessen expenses."



Philadelphia,	34 years,	1807 to 1840,	- -	2.5510
Baltimore,	14 "	1836 to 1849,	- -	2.4917
Charleston,	27 "	1822 to 1848,	{ Whites,	2.4826
			{ Blacks,	2.6458
			{ Both.	2.5798
Savannah,	8 "	1840 to 1847,	Whites,	4.1616
New-Orleans,	4½ "	1846 to 1850,	- -	8.1017

*Annual Average Mortality of Other Places.*

* Massachusetts,	1847-'48,	- - - -	1.59
† Twelve counties of England,		- - - -	1.93
† Twenty-six Cities	Do.	- - - -	2.72
† London,	{ Males,	- - - -	2.74
	{ Females,	- - - -	2.31
† Liverpool,	{ Males,	- - - -	3.53
	{ Females,	- - - -	3.15
§ Liverpool,	1850,	- - - -	2.73
§ Manchester,	{ Males,	- - - -	3.65
	{ Females,	- - - -	3.31

It will be seen that the mortality of New-Orleans is nearly double that of Savannah, the highest on the list, two and four-fifths times greater than that of New-York, and more than three times that of any other city. I must confess my surprise at the great mortality of Savannah, and must add that it is highly probable that its mortality in former times was even greater, but I have not the data for the calculation. I have the deaths of whites annually from the year 1810, but have been unable to obtain the numbers of the white population of the city, anterior to 1840; I must also add, that I have not yet examined the mortality of Mobile, for a similar reason.

But it may be said, that the year 1847, should not be included, as it was a very unusual year, nor the cholera period, of 1848-'49, as this also constitutes an exception to the general healthiness of New-Orleans. I reply first, that the cholera and all other epidemics are included in the calculations for the other cities;—but let us enter into a more accurate calculation on these points. The year 1849 is generally considered in New-Orleans, a *healthy* year, *cholera excepted*, as has been repeatedly asserted by the medical profession and the press. During this ~~time~~ Philadelphia, with a population three times that of New-Or-

*year*

\* Calculated from Registration Reports.

† Dr. Jarvis on Vital Force.—Appendix.

‡ McCulloch's British Empire.

§ Chambers' Edinburgh Journal, March 1, 1851.

leans, had fewer deaths by four hundred, and even if we deduct the deaths from cholera in the latter, the mortality of Philadelphia, compared with the population, was but one-half that of New-Orleans. From 10,661 deaths in New-Orleans and Lafayette, during the year, deduct 3,285\* deaths from cholera and cholera morbus—there remains 6,577; taking the population at 115,000, the mortality would be (excluding cholera) 5.719 per cent.

Again, let us take the year 1850. Our daily press announced to the world the continued healthiness of the city, the citizens rejoiced in its salubrity, and the medical profession were for the most part idle during the year. The Board of Health state that the cases of yellow fever were so few as scarcely to deserve notice; that cholera was at no time epidemic, and if any epidemic prevailed, it was dengue, which is not a fatal disease. The Mayor says, in a message to the General Council, as published in the official newspaper:—

“It affords me much pleasure to observe that the city has been perfectly healthy during the past year, and free from all epidemic. This gratifying fact is in part attributable to the opening and laying out of streets in the rear of the city, a measure that must contribute not only to the increased salubrity, but also to the prosperity of New-Orleans; at the same time it is due to state, that this exemption from disease is also to be ascribed, in a marked degree, to the energy of the Board of Health, who, with comparative limited means at their disposal, have accomplished everything that could be done towards improving the sanitary condition of the community.

The regular weekly publications of the deaths by the Board, have not been without their effect, in checking the unfounded statements that were formerly circulated in regard to the mortality of New-Orleans, proving, as they have done, that with the rare exception of epidemics, to which all large cities are liable, we can lay claim to as great a share of health as is enjoyed by equally populous communities.”

This, then, is a favorable year, and we can surely take this one as a test, and parade it it before the world as a proof of the general salubrity of New-Orleans. The tables published by the Board of Health give 7,819 deaths; I can show omissions,† of which no notice is made in

\* The deaths from cholera in Lafayette are unknown; the interments from New-Orleans, are, however, included in this number.

† Exceptions having been taken to this remark, I annex the following extract from the remarks of Dr. Fenner, accompanying the portions of the paper published in his annual reports:—

“As to the discrepancy between the Board of Health and Dr. Simonds, in regard to the *total mortality* of the year in the two cities, it was a simple omission on the part of the Board to obtain *all* the interments at the Lafayette cemetery, and arose from the fact that the keeper of the cemetery was not required to furnish full reports

the report, which would make the aggregate 8,086, being but 700 less than the average of the last four and one-third years, including the cholera and the yellow fever of 1847. The mortality, therefore, of the healthy (for New-Orleans) year, 1850, was 6.22 per cent. This must convince the most skeptical. If New-Orleans is *healthy*, when one in every sixteen persons die, and when the admissions to the Charity Hospital amount to one in every seven inhabitants, or 14.1 per cent., then should we be informed what would be admitted to be an unhealthy year, and what number of deaths is requisite to prove the insalubrity of this place.

Again, bearing in mind that the population of New-Orleans and Lafayette is less than 130,000, and that during the *healthy* year, 1850, the deaths amounted to 8,086, look at Liverpool, with a population of 370,000, nearly three times that of New-Orleans, the deaths only amounted in 1850, to 10,123; compared with the population, the mortality of this year was in Liverpool 2.736 per cent.—of New-Orleans, 6.220 per cent.; or, while in every 1,000 sixty-two died in New-Orleans, only twenty-seven died in Liverpool. It has been said that the deaths in New-Orleans occur among those merely passing through the city, but Liverpool is the place of emigration for the greater part of all the Irish emigrants to all parts of the world. In fact, during the famine in Ireland, it is estimated that at one time there were in Liverpool 100,000 Irish paupers, men, women and children.

We, in New-Orleans, consider the past few weeks a period of unexampled health; let us, then, compare the weekly statement of deaths here with those in Boston:

<i>Deaths in Boston. N. Orleans and Lafayette.</i>					
Week ending, 1851, Feb. 22	-	70	-	-	132
March 1,	-	78	-	-	135
“ 8,	-	77	-	-	135
“ 15,	-	70	-	-	148
“ 22,		69	-	-	157
“ 29,	-	74	-	-	127
April 5,	-	81	-	-	140
“ 12,	-	71	-	-	162
“ 19,	-	57	-	-	180
<hr/>					
647					1,319
<hr/>					

The deaths in Boston are obtained from the Boston Medical and weekly, until the 1st of May, when the new law went into operation. Previous to that time, he furnished, by request, only such as died in New-Orleans and were buried in Lafayette. Such are the facts—as I have found on examination.”



Surgical Journal, where are given full details of the causes of death, with the sex, age, and nativity; the deaths for New-Orleans are from a statement of the Secretary of the Board of Health, but the sum of the details is three less than the total given by him.

According to the late United States census, the city of Boston contains 8,000 more persons than the cities of New-Orleans and Lafayette, in which, during nine weeks of our healthy season, the deaths are more than double those of Boston. It is the duty of the Board of Health to investigate this subject thoroughly, to point out the causes of this large mortality, the classes of the community among whom it prevails, and the parts of the city in which it exists. It might point out the number dying without medical assistance, and the kind of medical aid; the length of time sick, and the period of residence here. The certificates are, I know, very defective upon many of these points, but until the Board makes use of the data furnished, it cannot expect that the medical profession will render them more full. The publications of the Board only serve to prove an excessive mortality, without enabling any one to trace it to its source, that a remedy may be proposed.

These various comparisons show an unparalleled waste of human life, and it certainly demands immediate and efficient action from the city authorities.

It is to be regretted that the hygiene of the city has failed to receive at the hands of those to whom it has been entrusted, that degree of attention to which its importance entitled it. It is to be deeply deplored that, judging from the manner in which the mortuary statistics have been neglected, their value has not been duly appreciated, nor their bearing upon the sanitary condition of the city thoroughly investigated and fully developed.

It is necessary for me to criticise rather severely the last annual report of the Board of Health.\* My strictures refer to but two topics,—the tables accompanying the report, and so much of the report (about four pages) as summarily disposes of the important question of the sani-

\* I have but exercised an indisputable right in criticising the report of our own Board of Health, but some may think that the minuteness with which I have specified their errors, is unnecessary. I must, therefore, add, and it will be but justice to our Board of Health to state, that similar erroneous principles pervade the reports of other cities. Dr. Wynne complains of the arrangement of the reports of Baltimore. The reports for New-York for 1848 and 1849, now before me, and even those of Boston, if the specimen given by Mr. Shattuck in the census of Boston be still followed, are open to the same complaints. The reports in Charleston are the best I have seen, but they err in a want of detail. My strictures, therefore, may do good elsewhere.

tary condition of the city. The remainder of the report, devoted to the investigation of "the means to improve and preserve the health" of the city, meets, generally my approbation, and deserves commendation for noticing fully and fearlessly various topics pertaining to the improvement of its sanitary regulations. It scarcely does justice to the subject of the supply of water to New-Orleans, but we cannot go fully into this subject at present, and therefore drop it.

We must also express our decided disapprobation of the recommendation to require privies to be dug to the depth of fifteen feet. We had better try to remove, as speedily as possible, their contents, than provide for its accumulation for years, in such a state as to be always a nuisance. Experience would soon demonstrate the impropriety of the measure, for such privies would be constantly full of water, and would, during very wet weather, overflow, even in the highest parts of the city.

In the remarks made upon the report of the Board of Health, I have regarded it as an official document ; and I must add, that, considering it a fair exposition of the sentiments of the community, upon the subject of the healthiness of New-Orleans, I have referred to it more particularly, as the only tangible statement of this sentiment which I feel compelled to labor to controvert, for the good of the community. With many of the members of the Board I have no acquaintance, and of some, do not even know the names. For those with whom I am acquainted, I have the highest respect, as individuals, and I refer solely to the *official* acts of the Board, as a public body, without knowing how many of its individual members may disapprove of its official acts.

The Board of Health have deemed it unnecessary "to go into profound researches and philosophical speculations connected with the obituary reports;" though how they can determine the health of the city for the preceding year without "profound researches," and a thorough and complete analysis of the "causes of death," is not stated. It appears to think that its first duty is to assert the *healthiness* of New-Orleans ; and its second duty, to furnish such tables that none can easily controvert their position. I have, however, completely analysed them, and proceed to give some of the results, with some strictures upon the tables.

If a Board of Health desired to mystify the facts and conceal the truths furnished by tables of mortality, it should carefully copy the example given in the tables accompanying the late report of our Board. In the first place, the several tables given do not correspond with each other, nor with the sum of the details. In the next place, an alphabetical arrangement of

the causes of death is adopted; the objection\* to which are too important to be overlooked. It causes the introduction of synonymous terms and of numerous names so nearly synonymous and so seldom used, that they should be embodied under other designations. It separates diseases similar, and even identical in nature and cause. It places in juxtaposition, diseases the most dissimilar, because their initial letters happen to be the same.† This is, in fact, the principle of an alphabetical arrangement, than which there can be none worse. If, however, the diseases were carefully condensed, under the smallest possible number of terms, and if aggregates only were given, the defects of arrangement would not be so glaring.

The deaths are given for each sex of white and colored, separately, and each of them is divided into adults and children. It is not stated, however, at what age the period of childhood is supposed to end, and that of adult age to begin. This is very important, and should have been distinctly stated. I have calculated it, from the tables given, at fifteen years of age, which differs from the division formerly made in the reports of the Board, when the numbers were stated under and over ten years of age. The age of fifteen is to be preferred, if the census tables furnish the numbers at the same period, otherwise it will not be possible to determine the relative prevalence of different diseases at different ages.

Notwithstanding the extent of the tables, one cannot, without calculation, (and sometimes a most laborious calculation,) answer any one of the following questions:—What is the total number of deaths in any month? the total number of any disease? the total number at any named age? the number of females? of children? of colored? or even the number interred in a particular cemetery. In one word, the tables of the Board furnish numerous details from which might be compiled valuable tables, but in their present form, they are of no other use than to perplex and mislead those who may have occasion to refer

\* These objections were illustrated by special references, which are given in Fennel's Southern Medical Reports, ii, but they pervade, to a greater or less degree, every alphabetical arrangement of diseases.

† Notwithstanding the great objections to an alphabetical arrangement of diseases, a feeble attempt has been made to argue against a classified arrangement. The only instance adduced is that of apoplexy, and the argument runs thus: because, forsooth, *some* cases depend upon organic disease of *the heart*, and *some* are due to the disease of the arteries of the *brain*, *ergo*, apoplexy should not be considered a disease of the brain, but should be *classed* as a disease beginning with the letter A. Hereafter, then, we must not expect to find apoplexy treated of in works on diseases of the brain.



to them. This is not right: the Board has the power and the means to pay for the compilation of tables that would present every useful and necessary fact pertaining to the mortuary records in so plain a light, that no further labor would be necessary; and such are the tables that it should put forth.

The preceding remarks on the tables of the Board of Health, require an exposition of the true principles of classification. In establishing a system of classification for diseases, the first thing to be distinctly set forth is the object for which the classification is proposed, as the principles of classification must differ according to the end in view. The classifications of nosologists were doubtless first undertaken for the purpose of acquiring a clear and distinct view of the symptoms of diseases, with reference to their identification or diagnosis; and, secondly, as to the nature of morbid action with reference to the treatment of disease or practical medicine. When the science of medicine is to be taught to another, these principles must be kept in view, and must form the foundation of a classification for the purpose of instruction in the art of practical medicine. It is on these principles, therefore, that all systems of nosology have been constructed, and they have been proposed by practitioners of medicine, and constituted the only arrangements of diseases, until (as far as I am aware) about the year 1838.

In the year 1836, the Parliament of Great Britain passed a law requiring the registration of all births, marriages and deaths, in England and Wales. This threw into the hands of government a vast mass of materials, which required to be arranged, condensed and generalized. The officials on whom this duty devolved, were not necessarily medical men—they were clerks, and it soon became obvious that proper arrangements would diminish greatly their labor. What, then, was required of them? But first, what was the matter in hand? Leaving out of consideration, as at present irrelevant to this discussion, the births and marriages, there was placed in their hands a vast number of *names* of diseases; they had nothing to do with the diagnosis of particular diseases; neither did pathological theories nor therapeutical relations enter into the sphere of their investigations. They simply had to work with a mass of recorded *names*, which might or might not convey an intelligible idea to those required to reduce them to order. What, then, was the object proposed in the collection of these names, and for what purpose were they to be used?

The object of the registration was to obtain facts from which to ascertain the *sanitary* condition of the country, and this knowledge was

to be applied to the enactment of *sanatory*\* regulations, i. e., to the removal of the *causes* of disease. A system of classification was therefore required, differing essentially from that of nosologists. The objects were, then, first, to diminish the number of names, by bringing together the multitude of synonymes which different nosologists have proposed, that their systems might supersede previous theories. This object, as well as other considerations, required, secondly, that the proposed arrangement should, to a certain extent, conform to the nature of the diseases; but, thirdly, as the chief object of the whole, that the *causes* of disease, as prevailing in different localities, with different degrees of intensity, should be kept prominently in view. Mr. Farr, (who has since shown himself an eminent statist,) then but an assistant in the office, proposed a system, the outlines of which may be given in a few words. Taking all these causes of death, not diseases, he formed a class of external causes of death; the still-born and old age also constituted separate classes. He then selected from the catalogue of diseases, cholera, diarrhœa, dysentery, endemic fevers, eruptive fevers, erysipelas, syphilis, and formed them into a class which he entitled zymotic, and which, depending for their development upon local circumstances and hygiënic condition, may be taken as the index to the sanitary condition of different places. This class includes all epidemic, endemic and contagious diseases; all other diseases were considered sporadic, and were distributed into classes according to the organs affected; one class being specially assigned to diseases of general, variable or indeterminate seat. This class has sometimes been misused; thus, Drs. DeSaussure and Dawson (in the "Census of Charleston") have placed under dropsy, in this class, ascites, hydrothorax, etc. The class is, we think, intended only for anasarca, and for those cases reported under the vague denomination, dropsy. Dr. Emerson has done the same thing, and under the title inflammation, has included all the phlegmasiæ. It may sometimes be advisable to collect together and present in a supplementary table, similar diseases; in other words, to carry as fully as possible, the arrangement of diseases according to their nature; but this should not be allowed to interfere with a different arrangement, and every good arrangement requires that each disease should be named once, and but once.

The English system was recommended by a committee of the American Medical Convention, with but few alterations, of which the change to an alphabetical arrangement of the diseases of each class is far from

\* *Sanitary*, PERTAINING to health—(passive.)  
*Sanatory*, CONDUCTING to health—(active.)

meeting my approbation. The same reasons which may be urged in favor of a classification of diseases, apply equally to the arrangement of the diseases in each class. The English statist had followed this principle, and the transition from one disease to the next was less violent than necessarily happens in an alphabetical arrangement.

Thus, the classifications in use adopted the principle of classing together diseases according to their causes, to a limited extent only: external causes and zymotic diseases being the only classes to which it was applied. It is really surprising that no other attempt than that of Mr. Farr, has been made to apply and extend this principle. The English and American systems possess, however, a greater defect than the mere want of completeness: they are incorrect, inasmuch as the classes do not possess the same degree and extent of generalization. The diseases comprehended in the several classes being regarded as species, the several classes of sporadic diseases are genera, and together would form an order—but the classes of zymotic diseases and external causes not being sub-divided, are ranked with the other classes as genera, though they really are orders. It is easier to perceive the discordancy when compared with a correct arrangement, than to explain it briefly, while only looking at the system alone. I shall therefore proceed to expound the system which was proposed in the report already referred to, and which I now follow.

All the deaths reported are first divided into those of specified and unspecified causes of death, and I throw into the latter all errors; that is, after enumerating the specified causes, these deducted from the total will leave the unspecified. This should be necessary only in re-arranging printed tables, where typographical errors render it almost impossible to make the sum of the details correspond accurately with the true totals; but it would also be convenient in the preparation of tables from original data, where the error is so small as not to require an entire revisal of the work accomplished.

The specified causes are next separated into three divisions—zymotic, sporadic, and external causes of death. The first embracing nearly all epidemic, endemic and contagious diseases, which depend for their prevalence upon local causes, or those more widely diffused terrestrial, meteoric or other occult causes, rendering one place less salubrious than another, constitutes the standard by which to compare different localities, and to determine their relative salubrity. The second embracing nearly all other diseases, and those depending upon the constitution and peculiar organization of the individual, is the standard for a comparison of the different races, sexes, etc. The causes of death em-



braced in the third division, render it a good standard to compare the social and moral condition of the inhabitants of different localities.

Each of these divisions, as I call them, are subdivided into classes. The zymotic division has three classes—the first, being intended to contain the deaths from any disease which may prevail as an epidemic; is contingent, and will generally be blank; the second, embracing cholera, diarrhoea, dysentery, fevers, (except puerperal and scarlet,) erysipelas, influenza or catarrh, thrush, cholera infantum, croup and dengue, is entitled endemic, and is peculiarly the class for comparison of the mortality of different places, with reference to local causes of disease; the third class has been separated from the zymotic class of other statisticians, and is the one to which the term zymotic peculiarly belongs; but the name has been bestowed upon the division to conform as nearly as may be to established usage. This class, embracing whooping cough, scarlatina, measles, vaccination, small pox, mumps, will contain only those diseases to which the human race is everywhere subject, and which, having been once suffered, afford thereafter perpetual immunity, except in a few rare cases; it has been named *Monoxysmal*, signifying that its attacks are experienced but once, and that no second *paroxysm* is to be expected.

The second division, or sporadic diseases, depend upon such occult causes that it cannot, at present, be subdivided in accordance therewith; it is, therefore subdivided according to the organs or parts affected. It contains thirteen classes, of which one is assigned to diseases of general variable, or uncertain seat, and to this no disease should be referred whose designation is so explicit as to permit a reference to other classes. To this class *anæmia* and *teething* have been transferred, as being too vague to admit of reference to the classes in which they have been hitherto embraced. For the special diseases included in this and the following classes, reference may be made to ~~the tables in Penner's~~ *Southern Medical Reports*, ii. 87-78. *SP 42-3-4*

*Included* Instead of diseases of the generative system, two classes are proposed—diseases peculiar to males, and those peculiar to females—under the latter, diseases of the female breast, and, with some hesitation, hysteria. A special class is also assigned to the diseases of the organs of special sense, less for the few deaths attributed to these, than to render the classification sufficiently complete to be applicable to statistics of morbidity and of hospitals. Deaths from old age, and the still-born, form separate classes under this division.

The deaths from external causes, forming the third division, are subdivided into three classes, the first of which (Class xvii.) is entitled

Casualties. It includes accidents, injuries, concussions and compressions of the brain, fractures, drowned, burns and scalds, as well as those dying of meteoric conditions;—the killed by lightning, cold, heat, sun-stroke, drinking cold water, exposure, and also those from the bites of venomous animals. In the next class should be included only those who are wilfully killed, but as the distinction is not generally made in reports, it may be assumed that those reported as poisoned and killed belong here, and also that all wounds be considered as connoting the result of the action of another person upon the body of the sufferer. This class is designated *Exopathia*; implying that the cause of death originated without, and that the death is the result of the infliction of another person. The third class of this division is entitled *Esopathia*, and is intended to include those deaths resulting directly or indirectly from the actions of one's self; it will therefore embrace suicide, the executed, considered as suffering justly from his own misconduct,—syphilis, as due to the individual's violation of the laws of morality,—and delirium tremens and intemperance, as originating in a deficiency of the power of self-control.

In accordance with this system of classification, the deaths in Boston, New-York, Philadelphia, Baltimore and Charleston, for a series of years, and in New-Orleans for four years, have been arranged; and it is only *necessary* to compare twenty classes and three divisions to see the relative mortality of these different cities. This examination shows, that in New-Orleans the mortality of nearly every class of diseases exceeds that of other cities; and in the division of zymotic diseases, the proper standard for the comparison of different localities, the excess is frightful. The mortality from external causes, and from each class in this division, is also considerably above that of other cities. It is apparent, even from a perusal of the public prints, that the number of homicides in New-Orleans is very much greater than in other cities, and mortuary statistics prove the same fact.

But we return to the table of mortality of 1850, and leave, for another occasion, a comparison of the mortality of different classes of disease.

I have classed cholera as epidemic during the months of March, November and December. The report of the Board of Health states that, "during the year 1850, cholera has at no time been epidemic;" but it does not specify what number of deaths is sufficient to constitute an epidemic, in the opinion of the Board. In a report to the American Medical Association, (See Transactions, iii. 275,) I suggested the propriety of recording, in statistical tables, the prevalence of epidemics, by

establishing a distinct class therefor, and gave the following rule for determining when a disease was epidemic: "The number of deaths for the preceding five years being known, the average for each month, week and day, could be calculated, and whenever the mortality from *one disease* equalled the average for the same period, the disease might be considered epidemic, and the period during which it possessed this character, should be noted in the reports." To this rule I will now add that, in the calculation of the average, the mortality from preceding epidemics should be deducted. This becomes necessary for this city (though it can scarcely be necessary elsewhere), as the constant succession of epidemics would place the average very much too high, the rule itself placing the epidemic point much higher than would be deemed necessary in any other place than New-Orleans, where a mortality at the rate of six per cent. per annum is so common, that the city must be considered healthy when it does not greatly exceed that rate.

The deaths from cholera, during the year, amounted to 1,517, constituting one-fifth of the entire mortality; of these 1,517 deaths from cholera, there were 1,245 whites, 272 colored; 962 males, 555 females; 1,176 adults, 341 children. The deaths were distributed through the year as follows: in January, 128; February, 29; March, 415; April, 75; May, 66; June, 40; July 12; August, 8; September, 45; October, 101; November, 367; December, 231.

To return to the question of the epidemic character of cholera during the past year. The statistical tables of New-Orleans are as yet too imperfect to permit the application of the preceding rule; I have, therefore, applied another principle. The mortality, per annum, from all diseases, of Liverpool, and of Manchester, is nearly three and one-half per cent.; of London, Philadelphia and Charleston, S. C., about two and a half per cent.; of Boston, two and a quarter per cent.; of New-York city, two and three-quarters per cent. Let us, then, assume that a mortality at the rate of two per cent. per annum will entitle us to consider a disease epidemic. The population of New-Orleans and Lafayette, by the last United States census, is about 130,000, two per cent. on which would be 2,600, one-twelfth of which would be 216 per month. The deaths from cholera exceeded this number during the months of March, November and December, and it is therefore considered epidemic during these months. During February, 1849, the deaths from cholera only amounted to 222.

Whether the epidemic influence of cholera was equally felt by all classes of the community, is a question of some interest, that may be approximately determined by the tables now given.



I find that for the period during which I have designated it as epidemic, it prevailed in the following proportion per cent. :—

<i>Whites.</i>	<i>Colored.</i>	<i>Males.</i>	<i>Females.</i>	<i>Adults.</i>	<i>Children.</i>
80.5	19.5	63.9	36.1	75.1	24.9

while, during the rest of the year, the proportion was as follows :

<i>Whites.</i>	<i>Colored.</i>	<i>Males.</i>	<i>Females.</i>	<i>Adults.</i>	<i>Children.</i>
85.3	14.7	62.5	37.5	82.3	17.7

It therefore appears that during the months of March, November and December, the proportion of deaths from cholera, among the colored and among children, was greater than during the rest of the year, showing that the morbid cause operated during this period with greater force upon the very classes of the community who are most stationary.

#### LOSS BY DEATHS.

Let us now attempt to estimate the loss sustained by the cities of New-Orleans and Lafayette during the last four and one-third years ; the deaths amounting to 37,785. Gangs of slaves are worth an average price of \$400, and it cannot be considered extravagant to estimate our entire population as worth the same. Moreover, the table given below shows, among the deaths, a large preponderance of males, and of those in the prime of life, viz., from ten to sixty years of age. The deaths during this period, then, make a positive loss to the city of \$15,114,000 capital. To this must be added the interest on the capital, or the value of the labor of the adults who have died. During the two years, 1849 and 1850, the ages of those dying have been published by the Board of Health. From their tables we find that 61.80 per cent. of all deaths at known ages occur between ten and sixty years : 43.21 per cent. of the entire number being males, and 18.59 per cent. being females, as shown by the annexed tabular statement:—

N. O. & Lafayette.	<i>Deaths.</i>			<i>Proportion per cent.</i>		
	Total.	Males.	Females.	Total.	Males.	Females.
1849 and 1850.						
Under 10,	4,976	2,750	2,226	33.38	18.45	14.93
10 to 60,	9,214	6,443	2,771	61.80	43.21	18.59
Over 60,	719	373	346	4.82	2.50	2.32
	14,909	9,566	5,343	100.00	64.16	35.84

At least one-half of the females, who die between ten and sixty years of age, contribute to the maintenance of their families, and to the wealth of the city. We may therefore assume that fully one-half of the deaths are of the producing class of the community. Labor here commands

high wages, ranging from twelve to forty dollars per month; two hundred and ten dollars per annum will, then, be a low average for the value of the labor lost to the city, and this, in four and one-third years, will amount to, say \$900. The loss of the labor of those who have died, then, amounts to  $\$900 \times (37,785 \div 2) = \$17,003,250$ . The loss by death in capital sunk, and the value of labor amounts to \$32,117,250.

#### COST OF DEATHS.

But death brings to every family heavy expenses, and a certain amount of expense is incurred even in the death of a pauper. If we suppose eight rates, viz., 1, 2, 5, 15, 20, 30, 40 dollars, equally distributed, would average \$15, as the immediate cost of each death, and the total cost to the city, of the deaths, is  $37,785 \times \$15 = \$566,775$ .

#### AMOUNT OF SICKNESS.

In estimating the amount of sickness, we shall first state the estimates proposed elsewhere, though they cannot be adopted for this city. The estimates are based upon the number of deaths, and as the relation between sickness and death is not only far from being uniform, but varies greatly for every different disease, the ratio must differ for every locality presenting a different class of diseases. From observations of the prevalence of disease and the occurrence of deaths, during twelve years, in the public institutions in Lancashire, including Liverpool and Manchester, Dr. Lyon Playfair estimates that for each death there are twenty-eight cases of sickness, which he estimates to continue three weeks. Mr. Shattuck obtains a similar result from the cases treated during nine years in the Boston Dispensary, and adopts it in estimating the sickness of Boston. Mr. Farr considers that the number constantly sick is double the number dying in a year, which, by supposing each to last three weeks and five days, will correspond with the other estimate. Mr. Neison's investigations into the sickness and deaths experienced by the members of the Friendly Societies, gave seventeen cases to one death, during the period of life from twenty to seventy years of age.

It is evident that the question involved is but the determination of the average mortality of all diseases, and that the less the mortality the greater will be the number of cases to each death. It is very probable that in Boston and England, there are at least thirty cases to each death, or that the average mortality of all diseases does not exceed three and one-third per cent., for the estimates are based upon hospital and dispensary practice, in which the mortality must be greater

than the average. Mr. Neison's results are probably too low (the mortality being too high) for this reason, that while the deaths are all reported, the sickness reported to the Friendly Societies is only that which will entitle to the aid of the society, excluding that which does not disqualify from labor, and that does not continue a certain length of time. Perhaps, in some instances, so long a time as one week may be required by the rules of the society to constitute (technically) sickness.

From the "Statistical Report on the Sickness and Mortality of the United States Army," published under the supervision of Surgeon-General Lawson, and compiled by the late Dr. Forry, the following facts have been collected at the expense of much labor.\* During ten years ending with 1838, the number of cases treated by the medical officers was 136,108, among which the number of deaths was 1041, giving a mortality of 0.76 per cent. or one death to 130.7 cases; but 1629 deaths were reported to the Adjutant-General's office (including those that never received medical assistance†) which would give a mortality of 1.19 per cent. or one death to 83.5 cases of sickness.

The following table shows the mortality of a large number of hospitals, with the sources from which it has been compiled. In presenting such statistics, it is important to preserve distinctly the *period of time*, the *length of time*, and the *number of cases* embraced in the observations, or very erroneous conclusions may be deduced from them. The mortality of large hospitals is not to be compared with that of small institutions, nor that of more recent with former periods, but with certain allowances. The *number of cases* is preserved by the fraction, of which the denominator expresses the entire number among which occurred the deaths specified by the numerator.

*Mortality at various periods of various Hospitals.*

** All the Hospitals of Paris,	1822,	11.87
† Ditto,	1840,	8.94
* Hôtel Dieu,	1804 a 1814,	22.32
† " "	1816 a 1819,	19.73
† " "	1820 a 1829,	14.77

\* Dr. Forry's object being to illustrate the influence of climate, he deducted the deaths by cholera, suicide, etc., which, by examination of the details for each military post, I have re-combined with the total to determine the average mortality from all causes under all circumstances.

† This discrepancy arises from the circumstance, that medical officers generally report the deaths on the sick list only, omitting those that occur suddenly, from accidental causes or on detachments. Report, p. 72.

\*\* American Journal Med. Sciences O. S. iv. 461.

\* Bartlett in American Journal of Med. Sciences, O. S. vols. ii, iii, iv.

† Stewart on Hospitals.



† Hôtel Dieu,	1830 a 1839,	11.71
† " "	1840,	12.21
† " "	1816 a 1840,	13.60
* " "	1821 a 1822, $\frac{3375}{21899}$	15.41
† Hôtel Dieu annexe,	1840,	6.83
* La Charité,	1804 a 1814,	13.92
* " "	1821 a 1822, $\frac{1160}{7032}$	16.49
* " "	1840,	10.12
* La Pitié,	1804 a 1814,	22.22
* " "	1821 a 1822, $\frac{1041}{7823}$	13.30
† " "	1840,	9.05
* St. Antoine,	1804 a 1814,	18.18
* " "	1821 a 1822, $\frac{814}{5263}$	15.49
† " "	1840,	13.19
* Chochin,	1804 a 1814,	13.33
† " "	1828 a 1838,	14.28
† " "	1840,	9.83
* Necker,	1804 a 1814,	16.66
† " "	1840,	9.95
* Beaujon,	1804 a 1814,	18.18
† " "	1840,	11.40
† St. Louis, (cutaneous diseases)	"	5.49
† Du Midi, ( males, venereal " )	"	1.01
† L'Ourcine, (females, " " )	"	2.83
* Des Enfants Malades,	1804 a 1814,	22.22
† " "	1840,	22.88
† De la Maternité, (lying-in)	"	3.65
† Hôtel Dieu, (lying-in wards,)	1814,	8.00
† Des Cliniques,	1840,	6.48
† Maison Royale de Santé (paying,)	1840,	16.00
§ Maison Royale de Charenton (lunatics,)	1826 a 1833,	
† Bicêtre, (aged ind. and lun. males,)	1840,	14.28
† La Salpêtrière, ( " " females,)	1840,	20.00
† Des Femmes incurables,	1840,	12.00
† Des Enfants Trouvés,	1793 a 1795, $\frac{2472}{10694}$	79.22
† " "	1837, $\frac{1458}{5467}$	26.66
† " "	1840, $\frac{1117}{4298}$	25.98

\* Bartlett in American Journal of Med. Sciences, O. S. vols. ii. iii. iv.

† Stewart on Hospitals.

§ Esquirol, as quoted by Stewart.

	Copenhagen General Hospital,	7.00 a 8.00	
¶	Great Hospital of Milan,		13.82
††	Manchester Hospital,	1842,	8.12
††	Birmingham “	“	8.64
††	Bristol “	“	5.58
††	Hull “	“	5.28
††	Leeds “	“	4.59
††	Sheffield “	“	4.13
††	York “	“	4.27
††	Nottingham “	“	3.35
††	Oxford “	“	3.32
††	Worcester “	“	3.42
††	Northampton, “	“	2.42
††	Glasgow Royal Infirmary,	1846, $\frac{184}{4547}$	10.64
§§	Belfast Fever Hospital,	1817 a 1835,	6.66
	London “ “	1802 a 1828, $\frac{1059}{7902}$	13.39
¶¶	Massachusetts General Hospital,	1841 a 1845, $\frac{193}{2004}$	9.65
***	Pennsylvania “	— 1830, $\frac{2966}{27131}$	10.93
§§§	Cincinnati Commercial “	— 1849,	15.93
¶¶	Boston Dispensary,	1837 a 1845, $\frac{791}{21265}$	3.72
†††	Seaman's Retreat, Staten Island,	— 1846, $\frac{67}{1601}$	4.18
	New-Orleans Charity Hospital,	1825 a 1850, $\frac{24309}{147727}$	16.45
	“ Marine “	1849 a 1851, $\frac{136}{2482}$	5.48

The only data for the determination of the question with reference to New-Orleans, are the records of the Howard Association, and of the Charity and Marine Hospitals.

The records of the Howard Association, which I have been permitted to examine by Mr. Ricardo, furnish the following results:—In 1841, the cases treated numbered 670—the deaths recorded amounted to eighty-six, giving a mortality of 12.8 per cent; in 1847, there were treated 449 cases—the recorded deaths amounting to fifty two; the

|| British and Foreign Medical Review, iii. 567.

¶ “ “ “ “ xxiv. 380.

†† Edinburgh Medical and Surgical Journal, lxxvii. 382-385.

§§ British and Foreign Medical Review, iii. 268

||| Tweedie on Fever.

¶¶ Shattuck's Census of Boston.

\*\*\* Journal of Health.

††† New-York Journal of Medicine.

§§§ Annual Report.

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mortality was, then, 11.5 per cent. During this epidemic, two Infirmaries were opened: in that on Duplantier street the cases amounted to 164, of whom thirty-four died, the mortality being 20.7 per cent. The Infirmary on Spain street gave 28 deaths (excluding the moribund) among 109 cases, being 25.68 per cent.; including thirteen reported as moribund, the mortality would be 33.6 per cent. These records being summed up, show 1,405 cases treated and 213 deaths, which would give as the average mortality from yellow fever during these two epidemics, 15.16 per cent. or one in six and a half.

The records of the Charity Hospital give as the average mortality from yellow fever, during twenty-five years, 44.27 per cent., or 1 in  $2\frac{1}{4}$ . (Fenner's South. Med. Rep., vol. i., p. 124).

The average mortality, from all diseases, in the Charity Hospital, during twenty-six years, from 1825 to 1850, is 16.45 per cent., or 1 in 6. The following table being more complete than any heretofore published, gives the mortality for each year, with all other details that could be obtained.



*Statistics of the New-Orleans Charity Hospital, from 1820 to 1850,  
inclusive.*

ADMITTED.									
	<i>Remaining 1st Jan.</i>	<i>Total.</i>	<i>Females.</i>	<i>Blacks.</i>	<i>Resident over three years.</i>	<i>Discharged.</i>	<i>Died.</i>	<i>Total.</i>	<i>Mortality per cent.*</i>
1820	40	1069							
1	46	1308							
2	82	1685				1116	573	1689	33.92
3	78	1288				983	283	1266	22.35
4	100								
5	70	1262				989	218	1207	18.06
6	125	1373				1212	196	1408	13.92
7	90	1857				1549	304	1853	16.40
8	94	2434				1989	401	2390	16.78
9	138	2559				2065	483	2548	18.96
1830	148	2768				2366	424	2790	15.19
1	116	3749				3149	409	3558	11.49
2	309	2170				1703	568	2271	25.45
3	169	3851	141			2617	1114	3731	29.85
4	262	5841	261			4745	1052	5797	18.15
5	265	6205	252			4999	1226	6225	19.69
6	222	4754	310			4163	585	4748	12.32
7	228	6103	525			4640	1420	6060	23.43
8	271	4687	451			3890	683	4573	14.94
9	239	4833	546	52	660	3611	955	4566	20.90
1840	267	5041	567		1231	4370	619	4989	12.4
1	314	4380	562	82	1018	3093	1156	4249	27.2
2		4404	611	70	791	3516	761	4277	17.8
3		5013	669	78	1146	3672	1041	4713	22
4		5846	791	54	966	5059	713	5772	12.3
5	383	6136	869	144	1192	5446	563	6009	9.3
6	401	8044	1211	110	2034	7074	855	7929	10.8
7	427	11890	2345	91	1843	9369	2037	11406	17.8
8	829	11945	2214	15	295	10010	1897	11907	15.9
9	609	15558	3342	71		12133	2745	14878	18.4
1850	719	18476	4576	53		15989	1884	17873	9.98
1820-4									
5-9		9485				7804	1602	9406	17.03
30-4		18379				14580	3567	18147	19.65
5-9		26542	2084			21303	4869	26172	18.60
40-4		24684	3200		5152	19710	4290	24000	17.87
5-9		53573	9981	431		44032	8097	52129	15.53
1820-9									
30-9		44961				35883	8436	44319	19.03
40-9		78257				63742	12387	76129	16.27
1825-50		151179				128418	24309	147727	16.45

\* The mortality is calculated from the number of cases treated to termination, either in discharge or death, irrespective of the period at which the case was admitted. This is the only correct method (though it has not always been followed) for it is certainly wrong to consider those in the hospital as cured. Moreover, thus only can the mortality of diseases be calculated, for deaths have been reported from diseases of which there are no admissions; numerous cases occurring of deaths from diseases contracted in the Hospital.

To the kindness of Dr. McKelvey, I am indebted for the following statement of the *Discharges and Deaths* in the Marine Hospital:

	<i>Discharged.</i>	<i>Died.</i>	<i>Total.</i>	<i>Mortality.</i>
1849	844	48	892	5.38
1850	955	64	1019	6.28
1851 2 qrs.	547	24	571	4.20
	<hr/>	<hr/>	<hr/>	<hr/>
	2346	136	2482	5.48

Of these statistics the details are in but few cases given with sufficient precision to be summed up for a general average, and these happen to be those presenting the greatest mortality. Aggregating, however, these details as far as possible, omitting only the Hopital des Enfants Trouvés for 1793-4-5, we obtain the following

*Table showing the number of deaths and of cases treated in various Institutions.*

	<i>Deaths.</i>	<i>Cases.</i>
Hôtel Dieu, - - - - -	3,375	21,899
La Charité, - - - - -	1,160	7,032
La Pitié, - - - - -	1,041	7,823
St. Antoine, - - - - -	814	5,253
Des Enfants Trouvés, - - - - -	1,458	5,467
Ditto, - - - - -	1,117	4,298
Glasgow Royal Infirmary, - - - - -	584	4,547
London Fever Hospital, - - - - -	1,059	7,902
Massachusetts General " - - - - -	193	2,004
Pennsylvania " - - - - -	2966	27,131
N. O. Charity " - - - - -	24,309	147,727
" Marine " - - - - -	136	2,482
Seamen's Retreat, Staten Island, - - - - -	67	1,601
Boston Dispensary, - - - - -	791	21,265
	<hr/>	<hr/>
	39,070	266,431
U. S. Army, - - - - -	1629	136,108
N. O. Howard Association, - - - - -	213	1405
	<hr/>	<hr/>
Total, - - - - -	40,912	403,944

This table presents a wider range and more extensive generalization than I have yet met with. Excluding the two last items, the mortality is 14.66 per cent., or 1 death to 6.81 cases. Including the U. S. Army

and the Howard Association, the mortality is 10.12, or 1 death to 9.87 cases. *for cv*

Notwithstanding the high rate of mortality exhibited by these Hospital records, when we consider that generally (the New-Orleans Charity Hospital being an exception) none but the gravest cases of disease enter hospitals, we may safely assume that the average mortality of *all* diseases does not exceed 5 in 100, and I am satisfied that the medical profession here will consider this a large proportion. A mortality of five per cent. is twenty cases of sickness to one death; 37,785 deaths have been before stated to have occurred here during the four and one-third years preceding 1851; there were therefore, 755,700 cases of sickness.

I have not been able to collect many observations on the length of time of cases of sickness, and none for New-Orleans. The following table presents all the data in my possession for the determination of this question.

*Average Residence of Patients in various Hospitals.*

						<i>Days.</i>
* Hôtel Dieu,	-	-	-	-	1816 a 1819	36
* " "	-	-	-	-	1820 a 1831	25
* " "	-	-	-	-	1832 a 1840	18½
† La Charité,	-	-	-	-	1822	30
† La Pitié,	-	-	-	-	"	28
† St. Antoine,	-	-	-	-	"	31
* " "	-	-	-	-	1840	21
* Des Cliniques,	-	-	-	-	"	21
* Necker,	-	-	-	-	"	18
* St. Louis, cutaneous diseases,	-	-	-	-	"	32
* Du Midi, males, venereal diseases,	-	-	-	-	"	30
* L'Ourcine, females, " "	-	-	-	-	"	60
* Des Enfants Malades,	-	-	-	-	"	42
* Maison Royale de Santé, (pay patients,)	-	-	-	-	-	23
† Great Hospital of Milan, males,	-	-	-	-	1811 a 1844,	13
† " " " females,	-	-	-	-	" "	15
† Brothers in Charity, "	-	-	-	-	1604 a 1844,	21
§ Belfast Fever Hospital	-	-	-	-	1817 a 1835,	22
¶ Hospitals of Liverpool and Manchester, 12 years,	-	-	-	-	-	21

\* Stewart on Hospitals.

† Bartlett in American Journal Med. Sciences, iii. iv.

‡ British and Foreign Medical Review, xxiv. 380.

§ " " " " iii. 268.

¶ Playfair, as quoted by Shattuck.



Embracing, as this does, the observations on many hundred thousand patients, the range of numbers will give a sufficiently correct idea of the duration of cases of sickness, though a general average cannot be correctly obtained for want of more precise details, than are given in the authorities quoted, except for the Hôtel Dieu, and for La Charité, La Pitié and St. Antoine, for 1822.

It has before been stated that Farr's estimate would require an average duration, for each case of sickness, of three weeks and five days; Playfair's observations three weeks; and the latter is adopted by Mr. Shattuck in his estimates for Boston. We shall suppose that in New-Orleans, the average duration is two weeks, presuming a greater prevalence of acute diseases. The number of days' sickness was, then, 10,579,800, equal to the constant sickness, during the entire period, of 6,687 persons, and equal to 28,985 years of sickness experienced during four and one-third years, by a population of less than 100,000, and equal to an entire life-time of 1,159 persons attaining to the average age at death generally attained in this community.

#### LOSS BY SICKNESS.

25 Let us see, however, what is the pecuniary loss involved in this amount of sickness. Assuming, for want of more accurate data, that the sickness of the several classes of the community with respect to age and sex, is proportional to the number of deaths in those classes, the tabular statement on page ~~621~~ will justify us in estimating one-half the amount of sickness as occurring during the producing period of life, among those whose labor conduces to their own welfare, and contributes to the wealth of the community. Supposing, further, that there are 300 working days in each year, or that, in addition to fifty-two Sundays, there are thirteen days lost by holydays, etc.; during the last four and one-third years, the city has lost by sickness the product of 4,347,750 days, ( $28,985 \text{ years} \times 300 \div 2$ ), of the labor of those whose services are remunerated. It would be a moderate estimate to suppose this labor worth an average of \$1 per day, when we consider that ordinary laborers get from \$1 to \$1.50 per day, that clerks get from \$1 to \$3 and \$5 per day, that some men count their gains by tens of dollars, and that even domestics get from \$12 to \$15 per month, and their board. Even, however, at fifty cents per day, this loss would amount to \$2,173,875.

#### COST OF SICKNESS.

Not only does sickness cause a loss of labor; it involves an absolute

expenditure of money for medicines and medical services, etc. The charity and private hospitals charge \$1 per day for slaves, and this may be considered a fair average; for although a large portion of the sickness pays no physician's bill, yet surgical operations and wealthy patients must pay sufficient to make this amount near the average cost. The sickness of the last four and one-third years has, then, involved the expenditure of \$10,579,800.

## TOTAL LOSS DURING FOUR AND ONE-THIRD YEARS.

Capital sunk by death,	-	\$15,114,000	
Value of labor lost,	-	17,003,250	
			32,117,250
Value of labor lost by sickness,	-	-	2,173,875
Losses,			\$34,291,125
Cost of deaths,	-	-	\$566,775
“ sickness,	-	-	10,579,800
Expenditures,	-	-	\$11,146,575
			\$45,437,700

Being an average annual loss of \$10,485,623 to the city, and of nearly \$105 to every individual in it.

Is it, then, surprising, that New-Orleans has not progressed more rapidly? What other city has had to encounter such losses, and what other city could stand them? New York, when her population was what ours is now, could not have stood it, if indeed, even now, she could. Is it wonderful that we are heavily taxed, when so large a portion of our wealth has been lost in the sick chamber, and swallowed up by the grave?

It may be said, that an estimate based on the value of slaves is not fair, inasmuch as the latter is an investment of a certain definite amount of capital, while the inhabitants of the city are voluntary immigrants, who have cost the city nothing; but if a slave were given to any one, would not his death be a loss? The reference to the value of slaves serves only to determine *what amount* shall be the average value placed upon the inhabitants; that those who die are worth something to the city and State is evident, and the only question is as to the amount. The calculation may be made for the city of Boston as well as for that of New-Orleans.

It may be said that crowds rushing in fill the places of those who

have died ; but it is forgotten that instead of adding to our numbers, to our taxable citizens, and to our productive wealth, they only replace those whose death has not enriched any.

If it be said that thousands die whose death is no loss, or even a real gain, it must not be forgotten that thousands die and hundreds leave our city from its unhealthiness, who would be worth to it much more than the average value I have assumed.

Give to this city a population so numerous that the amount of taxation will be reduced, and the cost of labor diminished, and you will increase its commercial prosperity, inasmuch as you will, by diminishing the charges on the passage of produce to the markets of the world, offer inducements for its consignment to this place.

The important question that must present itself to every mind is, can these losses be prevented?—can this state of things be remedied? I answer fearlessly, yes. You will point to epidemics,—they are the very sources of disease that can be partially, if not entirely removed. You may refer to cholera, and I can show you that in England, her statist and sanitary officers point with triumph to this very disease, to prove the efficacy of preventive measures, and the efficacy of her sanitary regulations. During the late visitation of cholera, what cities have suffered severely by the disease? New-Orleans and St. Louis ; the former of which I know, and the latter I presume, from this very circumstance, have neglected those means that would have prevented its wide-spread devastation and its desolating blight. But recently a poor man landed in this city ; he, his wife and two children, were crowded into a little room, with no opening save the door ; in a few days one child was attacked with cholera, and in twenty-four hours he was left alone, probably to fall a victim to our recklessness in not even attempting to prevent an epidemic yellow fever. Is it surprising that the rookeries and purlieus of the city should be filled with disease as well as crime?

The following extracts (slightly altered) from the report on Quarantine of the General Board of Health, (of England,) though not possessing my entire concurrence, will be instructive to all, and will probably possess more weight than any thing that can be urged by myself on this subject.

“ Epidemic diseases were formerly universally considered to be essentially different in their nature, each being thought to depend on its own specific contagion ; and the correctness of this view seemed to be confirmed by the great apparent difference between typhus, scarlatina, influenza, plague, yellow fever and cholera ; but whether each of these diseases depends on a peculiar and specific cause, or whether they all



derive their origin from one common agent, essentially the same in nature, but modified by peculiarities of climate, and other circumstances, and which, under varying conditions, gives rise to various forms or types of disease, each having definite characters, and running a particular course,—which ever of these views be adopted, it is agreed, by most eminent investigators, that there is a general resemblance between these various forms of disease, and that they have the following characters in common:—They are all fevers; they are all dependant on certain atmospheric conditions; they all obey similar laws of diffusion; they all infest the same sort of localities; they all attack chiefly the same classes, and, for the most part, persons of the like ages; and their intensity is increased or diminished by the same sanitary and social conditions.

“The consideration of these common properties of pestilence, under whatever form or name it may occur, has led to the general conclusion, that the true safeguards against the pestilential diseases are sanitary measures—that is to say, measures which tend to prevent or remove certain conditions, without which pestilential diseases appear to be incapable of existing.

“The essential condition on which epidemic diseases depends, is the presence of an epidemic atmosphere, without which, it is now generally admitted, that no contagion, whether imported or native, can cause a disease to spread epidemically.

“The experience of the present epidemic season affords evidence that the influence of an epidemic atmosphere may exist over thousands of square miles, and yet affect only particular localities. The cases of cholera which have occurred in numerous and widely-distant parts of England and Scotland, mark the presence of the epidemic influence; yet, over this extended area, cholera has fixed itself and prevailed as an epidemic only in very few places. Why has it localised itself in these particular places? Probably because it has there found conditions of a specific kind, either local or personal, or both. It follows that our true course is to make diligent search for all localising circumstances, and to remove them so as to render the locality untenable for the epidemic.

“It has been stated, that however wide the range over which the influence of any epidemic may extend, it cannot localise itself in any particular spot unless it find these fitting conditions; and that by attending to localising conditions, and removing them, we can avert its attack, or arrest its progress when it does break out. This most gratifying and encouraging result has been obtained, on a large scale, in numerous places, with reference to influenza, typhus and cholera; and the whole tenor of recent experience leads to the conclusion that, in proportion to the intelligence and energy exerted for the removal and prevention of the localising conditions on which the presence of epidemic disease is now known to depend, we can secure immunity from it.

“Thus, influenza in 1847, was found to be four times more prevalent in some parts of London than in others; and in the country, while in some districts, almost the entire population were affected, in others not a single individual suffered. The local conditions on which this extraordinary susceptibility to the disease, or comparative immunity from it,

depended, are, in a great measure, known and are found to be within our control.

"In like manner, after a careful examination of the experience of Hamburg, with reference to the visitation of cholera in 1832, the general result, resting on accurate statistics, is, that with regard to the same class of the population, there were, among those residing in the dirty and close parts of the town, five times as many attacks of cholera, and nearly four times as many deaths, as among those residing in the clean and airy parts of it—that is, irrespective of the condition of poverty. The difference of the sanitary condition in these two parts of the town, rendered the same class of inhabitants in the one district five times more susceptible to the disease than those residing in the other, and increased the actual mortality of the most susceptible four fold.

"But Hamburg accidentally affords a means of illustrating the power of improved local conditions to secure exemption from the presence of epidemic disease during the general prevalence of an epidemic influence, in its highest intensity, by an observation so exact, and on so large a scale, as to deserve particular reference to it.

"Since the epidemic of 1832, a large proportion of Hamburg has been reduced to ashes by the great fire of 1842, nearly one-third of the central part of the town having been destroyed. This part of the city has been reconstructed on a plan avowedly in conformity with the principles of improvement developed in the Sanitary Report; and though these principles have not been fully carried out, yet the result of an improved sanitary condition, as far as it has been realized, is thus stated by Mr. Grainger:—

"No statistical report of the epidemic of the present year, similar to that of Dr. Rothenburg, has yet been published;\* but after extensive inquiries among several physicians, I am fully justified in stating that the rebuilt part of Hamburg has experienced an exemption from cholera which is as remarkable as it is important. All the medical men with whom I conversed upon the subject, expressed themselves unequivocally to this effect; and, indeed, the thing is so notorious, as to be well known to the inhabitants generally. Dr. Rothenburg stated to me in evidence, that although there had not been time to classify the cases, it was clear that the epidemic had not advanced so far towards the Alster, or new part of the town, as in 1832. Other physicians state that it has been particularly confined to persons living near the Elbe. Mr. Volkers, whose office enabled him to form a more accurate judgment than other individuals, since it was his duty to take the addresses of all the applicants who came to the central bureau, in answer to my inquiries, states, that from extended observation he had ascertained that, comparing the poor residing in the rebuilt part of the town with those living in the old portion, not more than one of the former had been attacked with cholera for ten of the latter.

"As certainly as the per centage of typhus decreases with improved

\* Since this was written, the official account of the progress of cholera in Hamburg during the last year, (1848,) drawn up by Dr. Buck, has reached England, and this document fully confirms, in the main points, the previous statements.

drainage, paving and ventilation, so also will epidemic cholera. The proof of this has been afforded, on a grand scale, at Hamburg. The ravages of the disease has received a marked check in the present outbreak, by the substitution of wide, open, and well-drained streets, for narrow, filthy, and damp thoroughfares; by the removal of high mounds of earth, blocking up the streets, and overshadowing the houses, and by guarding a large evaporating surface of water from contamination.’”

But I may be asked, how much of this loss may be prevented, and will not the prevention cost more than it is worth? One-half or even two-thirds of this loss should have been saved, and no rational expenditure could equal this amount. But I may add, that no labor, that no money that could be judiciously expended in determining and improving the hygiene of the city would be thrown away. Sanitary reform, the question which is agitating other civilized communities, must take place here, whether the movement commences now, or at some other time.

The necessity for a complete revision of our system is most urgent. At present, no attempt—worthy even of the name of attempt—is made to improve the salubrity of the city, by removing or diminishing the causes of disease, and by improving the condition of the masses of the people; and this for the very obvious reason, that all believe or affect to believe our city to be *excessively* healthy. The only agent in charge of the sanitary police of the city—the Board of Health—is not endowed with sufficient powers to enable it to contribute anything to this end, even if, under its present and past organization, it were competent to the task. Its power is chiefly confined to the preservation of the records of the dead, the results of our defective sanitary system; and this power has, heretofore, been exercised only to the detriment of the city. All that has been done is to publish the total number of deaths, which is sufficient to convince the world, in spite of the contrary assertions accompanying the statements, that New-Orleans is very unhealthy. The special cause of this great mortality, the parts of the city in which, and the classes of the community among whom, it chiefly prevails—questions of practical utility in directing attention to those points upon which our sanitary condition might be specially known, and reformation ensue—have been entirely neglected. This should end. Either an efficient system should be established, or the present inefficient, injurious, and expensive one entirely abolished—dispensing entirely with the cemetery records, so that none can know the number of interments. Then would be realized here the sentiment of “the dead burying the dead”—those dead to all thought except for the present, and for money making; those dead to all desire for improvement;



those dead to all anxiety for the future welfare of the city they inhabit; those dead to their most important interests, would quietly bury, and quickly forget, their dead.

I have appealed (in vain?) to the medical profession, which elsewhere has taken the lead on this subject; I now appeal to the other classes of the community,—to the city authorities, and to all who, being identified in interest with the city, desire its welfare. To the authorities I submit the following extract from the Report of the Commission on the sanitary survey of Massachusetts:

"Debility, sickness, and premature death, are expensive matters. They are inseparably connected with pauperism; and whenever they occur they must, directly, or indirectly, be paid for. The city or town must pay for the sick man's support, for his food and clothing, for medical attendance on him during life, and for the support of his widow and children (if he have any) after his death.' A town in which life is precarious, pays more taxes than its neighbors of a different sanitary character. An individual who is unable to perform a large amount of labor, or no labor at all, is a less profitable member of society than one who can do whatever vigorous health allows."—(P. 254.)

To those who desire the welfare of the city, I will at present only submit that the moral state of a people is intimately connected with their physical condition. Physical degradation not only engenders crime, but causes disease: and great mortality develops a recklessness of human life and suffering, which, in turn, speedily manifests itself in outrages against person and property.

Whenever the mortality of New-Orleans is proved to be very high, the allegation is met by the assertion that this mortality occurs among the floating population, and this assertion is considered a sufficient vindication of the general healthiness of New-Orleans. It appears to be entirely overlooked that the very assertion virtually admits the deleterious influences attributed to the locality, or to the circumstances of city life. If healthy, robust emigrants, in the prime of life, die soon after their arrival, to what shall it be referred but to the noxious city atmosphere, or to other letiferous causes peculiar to the locality? But we shall proceed to examine the general bearing of the truth of the assertion.

It has been fully proved by the investigations of several statistis, that the mortality of cities is very much higher than that of the country generally. In England the difference is as the numbers 27,073 to 19,300, or about 40 per cent. In Belgium, if the average age at death be taken as a standard of comparison, the same fact is manifest, as will be seen by the following table, arranged from data in Dr. Jarvis' report to the American Medical Association:

## AVERAGE AGE AT DEATH OF DIFFERENT CLASSES.

	<i>Time—27 years.</i>			<i>Time—46 years.</i>		
	<i>Place—Dorchester.</i>			<i>Place—Brookline.</i>		
	yrs.	m.	d.	yrs.	m.	d.
Laborers, - - -	27	5	14	27	7	8
Mechanics, - - -	29	6	21	24	2	17
Merchants, - - -	33	2	27	29	3	3
Farmers, - - -	45	8	6	39	0	12

The difference in the town of Brookline is nearly ten years, and in Dorchester twelve years, in favor of that class which is peculiar to the country, over that prevailing in cities, and would be much greater if the average of the three classes, Laborers, Mechanics, and Merchants, which constitute the population of cities, were taken.

In the "Report on the Sanitary Condition of the Laboring Classes of England and Wales," Edwin Chadwick, Esq., gives the average age at death of the

Prosperous Classes,	-	-	-	-	42.6 years.
Middling	"	-	-	-	29 "
Poor	"	-	-	-	20.4 "

If we consider the constitution of a city population, as compared with that of the country, we will perceive that this statement also tends to point out the comparative shortness of life in cities. The poor abound in cities, and destitution and want prevailing more extensively and in greater degree than in the country, hurry thousands to a premature grave. At the same time, luxury, with its attendant enervating influences, also carries off a greater proportion than elsewhere. But it is unnecessary to adduce these proofs of the greater mortality of cities. Long ago they were pronounced to be the "graves of men," and the constitution of the population of every large city shows conclusively that its increase is due to immigration.

Having stated that the mortality of cities is greater than of the country, it may be asked if the reproductive force keeps pace with the increased mortality. This question does not appear to have been investigated by statist, and the materials for the investigation cannot be obtained in this city, but it is well worthy the attention of those who may have access thereto. The English registration reports show that while in all England there are 3,215 births to 100,000 persons, in the metropolis there are but 3,084 births to 100,000 persons, a decrease of more than four per cent., and the difference would probably be even greater were the births in cities compared with the rural districts excluding cities.

X It is probable, from this single fact, the only one that I can obtain, that the reproductive power not only fails to keep pace with the excess of mortality of cities, but that it is even diminished. If this be true, a certain proportion of the increase in the population of cities must be due to immigration, and this proportion will be temporarily a floating population, and will be the greatest in those cities that increase the most rapidly, the mortality being the same, or the increase being the same, it will be the greatest where the mortality is the greatest. Thus the very assertion of an excessive floating population is *prima facie* evidence of a great mortality.

The only idea to be attached to the term floating population is that of persons who, though in the city, have not by length of residence acquired citizenship, or identified themselves with the city. This population must therefore consist of three classes—those who visit the city chiefly for pleasure and amusement, and to inspect the curiosities herein constantly presenting themselves; those who have visited us for the transaction of business, to dispose of their crops, purchase their supplies, &c., &c.; and those who have come here for the purpose of earning a livelihood, or of making a fortune, whose intention is to settle here and make it their place of residence, if they can do so consistently with their future welfare. The first two classes are here but for a few days, or at most a few weeks; they have left behind their ties of family or business that prevent a prolonged sojournment in the city; they are ready to flee at a moment's warning on an alarm of general sickness or a little personal indisposition; they reside at hotels and boarding houses, in which, so far as my observation and inquiries go, there are but few deaths; and these classes, therefore, cannot contribute essentially to the mortality of the city.

But is the floating population of New-Orleans so much larger than that of other cities, as to account for a mortality double that of any other city? Has New-Orleans a greater number of visitors in the pursuit either of pleasure or of business than New-York. Certainly not. During a few months, say for half the year, New-Orleans contains a large number of strangers, and also a large number of persons who claim citizenship and do business here, but who fly during the hot and sickly season to more congenial and salubrious climes. But New-York is constantly thronged with visitors—its business season may be said to continue during the whole year—and there is no season during which there is not collected together a large number of seekers after pleasure. Places of amusement which are supported by strangers, are with us closed during a considerable portion of the year,—but not so in New-

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York. Our hotels are deserted during the summer—theirs are always filled. But with us even a large portion of the private residences are closed for two, three, or four months of the year.

It was recently stated at the Rail-road Convention, in the eloquent address of James Robb,—which frankly pointed out some of the evils under which the prosperity of New-Orleans had been retarded—that more persons entered and left the city of New-York in one month than visited New-Orleans during the entire year. If this statement be unquestioned in a Rail-road Convention, why question it when applied to the subject of the hygiene of the city? If this statement be received as true when applied to commercial statistics, why refuse to admit its application to vital statistics? The statement is based upon actual calculation, and is undoubtedly true; but when I point to the long catalogue of eight thousand names recorded in the “Dead Book” of the Board of Health, I am told that they occur among strangers, and that to estimate correctly the mortality of New-Orleans, I must add to the census population the visitors to the city. Let then the same thing be done for New-York, and add to her census population twelve times the number of persons added in making the estimate of the mortality of New-Orleans, and the comparison would be even more unfavorable to New-Orleans than I have made it.

The third class of the floating population consists chiefly of immigrants and adventurers, of perhaps but small or no means, who have cut off the ties that bound them elsewhere, and who, though but a short time resident here, are, to all intents and purposes, our own population. This class is enumerated in our census, pay taxes, contribute by their labor to the prosperity of the city, and will (if they escape the hand of death) become as truly citizens as seven-tenths of our present population, of whom indeed they constitute a large proportion. That this class contributes largely to swell our bills of mortality, is indisputable; but that the deaths from this class should be included in our calculations on the health of the city, is equally certain.

If New-Orleans really has proportionally a larger floating population than other cities, the reason is very obvious. Of the number attracted hither by the advantages of the city, a greater proportion die speedily, and consequently a smaller proportion live sufficiently long to become identified with the city. What length of time is requisite to change the character of those who come to reside in the city, from a floating to a permanent population? When this is settled, the record of deaths can be examined with reference to this question. Life Insurance offices recognize no fixed period of time, but require that the applicant



shall have experienced the yellow fever, which on an average will be epidemic every three years. Our State laws require two years residence to entitle a citizen of other States to be considered a citizen of this State. The United States requires the foreign immigrant to have resided five years in the United States. The annual reports of the Charity Hospital have generally stated the period of residence as under or over three years. Let us say, then, that three years is a fair average to constitute the stranger a citizen in this respect. Of one hundred persons settling in New-York in three years, nine will have died and ninety-one will become permanently resident; while of one hundred settling in New-Orleans, twenty-four will have died in three years, leaving but seventy-six permanent residents,—the law of mortality of the general population being applied to the class of unacclimated. This statement is not strictly accurate—in fact, the difference would be very much greater, as those who maintain the position that our mortality is caused by foreigners, and that for natives and the acclimated our city is *very* healthy, must admit a much greater difference in the rate of mortality of the newly arrived population. Again, suppose that on the 1st July, 1847, one thousand persons settled in each city, there would remain to be enumerated in the census on the 1st July, 1850, less than seven hundred and sixty persons in New-Orleans, and more than nine hundred and ten persons in every other large city. Our neglect of sanatory measures, our indifference to the deaths of strangers, and our criminal disregard of the lives and welfare of those who settle among us, has done more to retard the advance of New-Orleans than all the assertions of its salubrity can possibly remove.

It may be said, however, that the floating population are foreign immigrants, who are merely passing through our city. Let us then examine the statistics of immigration, to see what light they throw upon this point. According to a statement published in connection with the reports of the New-Orleans Charity Hospital, the total arrivals at New-Orleans from foreign ports, coastwise, and by steamboats, during seven years, from 1842 to 1848, was 222,122,—while the arrivals at New-York from foreign ports alone during the same period, was 738,462. (Hunt's Magazine, XXI., 657.) But how do the arrivals at the two cities from foreign ports alone compare? During the year 1847 the total arrivals in the United States was 250,000, of whom 166,110 landed in New-York—leaving but 90,000 for the rest of the United States. (Ibid.) Thus about two-thirds (66.44 per cent.) of all foreign immigrants landed in New-York. Again, from 1845 to 1848 inclusive, four years, 104,293 persons arrived from foreign ports in New-Orleans—a

number considerably less than the population of New-Orleans and Lafayette by the late census—while 556,209 arrived in New-York ; being more than the population of that city at the last enumeration. The attempt to excuse the great mortality of New-Orleans by referring it to the *vast* number of immigrants landed in our city, is not sustained by the facts.

But let me ask at what period of the year is our population floating and fixed (if indeed there be any fixed population here) greatest, and at what period is the morbidity and mortality of the city the greatest. It is well known that the months during which the greatest amount of sickness and the greatest number of deaths occur, are July, August, and September, and that during these very months our city is deserted by strangers, visitors, floating population, and even by our own citizens. But let us appeal to facts and figures that cannot be disputed. The records of the Treasurer of the Charity Hospital would probably furnish the total number of arrivals at New-Orleans for each month of the year, but this I am not able to furnish at present. The annexed Tables, E, F, G, show the arrivals from foreign ports for each month and season of each year, and for the entire period the total and the proportion. It will be seen that but 6.3 per cent. of the entire arrivals occurred during the summer—in July 3.73 per cent., in August 1.39 per cent., and in September 1.05 per cent.—hence but a small proportion of the entire mortality can be attributed to immigrants arriving at that period of the year. The mortality by months can only be obtained for the last two years, (and for these but imperfectly,) during which time the prevalence of cholera in an epidemic form during nine months, and during the winter, spring, and autumn, would vitiate the results of a calculation as to the relative mortality of the different months. I have, therefore, prepared Table II, deducting the deaths from Cholera during the first six months of 1849, and during March, November, and December, of 1850, during which periods I consider it epidemic. During January, April, and October, 1850, the deaths from cholera were also numerous, but they did not reach the high arbitrary standard which I was compelled to adopt for this city. The Table shows that during August, September, and October, the deaths were more than 30 per cent. of the entire number during the two years. The total number being 13,675, the mean for three months would be 3,419, which is exceeded during these three months 829, or nearly 25 per cent.

The deduction of the deaths from cholera may be objected to ; let us then go to the records of the Charity Hospital, which will furnish data for a longer period of time. Table K gives for each year, and for

seven years, the entire admissions for each month and season, and the proportion per cent.

These figures show that during the summer months, viz., July, August, and September, when the number of our population is at its minimum, and when the proportion of arrivals is least, the amount of sickness, as shown by the Charity Hospital, is nearly 25 per cent., or  $\frac{1}{4}$  more than the average, and this notwithstanding the prevalence of cholera during the other months at three or four different times, to an extent sufficient to be considered epidemic. If the cholera were excluded, or a longer period of time taken, the difference would be very much greater. It can no longer then be pretended that the dead are due to strangers and visitors, and that New-Orleans presents the anomalous position of being a grave-yard of the whole world, though itself the most salubrious of cities.

It has been suggested that in estimating the mortality of New-Orleans, it would be advisable to compare the number of interments in the different cemeteries, and it has been argued that such a comparison would show that the deaths occurred among the poor, and that but few of those who have resided here several years are poor, hence the deaths occur among strangers and the floating population. Now it must not be forgotten that the number of deaths is definitely known, the names being all on record, and that if it be assumed that the mortality must not be considered as equally distributed through the whole community, but that the mortality of certain classes is very much more favorable than the general average, then will the mortality of the other classes of the community be proportionally increased. Thus let us assume that the mortality of New-Orleans is but little greater than that of other American cities, say 3 per cent. annually, and that the census returns, and our estimated population based thereon, include a population among whom the mortality does not exceed this rate, and that the deaths beyond this occur among immigrants—for this is the general reply to the proof that New-Orleans is sickly, and appears to be considered a sufficient and satisfactory refutation. The total of the annual population of New-Orleans and Lafayette for four and one-third years being 466,384, 3 per cent. would give 13,991 deaths among our own population, which deducted from 37,785 deaths actually recorded, would leave 23,794 as occurring among immigrants. During the four and one-third years 140,579 immigrants arrived from foreign ports at New-Orleans, the mortality among whom after their arrival here would then amount to the enormous rate of nearly 17 per cent. If, then, the assumption be true, does not this enormous mortality demand immedi-

ate action on the part of our citizens, and the city authorities? Are these lives not worth preserving? Are these persons worth nothing to the community? Do they not constitute our laborers, our mechanics, in fact the bone and sinew of the city, as the farmer is of the country generally? Would they not, according to the very argument advanced, become in a few years wealthy and valuable citizens. It is, however, constantly alleged that a great proportion of the deaths of these immigrants are attributable to their own imprudence,—but are our hands entirely clear of their blood? Has the city made even an attempt to restrain their excesses? Has any voice as yet been raised to warn the unwary immigrants of the dangers to which they are exposed? Is the sale of unsound fruit prevented? Is the depositing of rotten fruit in the streets and gutters, and on the levees, prohibited? Does any law prevent the sale of unwholesome or adulterated bread or milk, or unsound hams or cheese? When the city has closed the many avenues which cupidity adopts to extort from the poor the little that they may have with which to buy the necessaries of life; when it has made such provision that he who can neither buy, nor beg, nor steal, will not be compelled to eat the offal of the streets or starve; then may we honestly say that these deaths are to be attributed to the misfortune or imprudence of the sufferers.

But the argument proves too much, for it leads to the inevitable conclusion that for immigrants the climate is even more pernicious than can be admitted. Thus it is calculated to retard in an eminent degree the increase of the city. Tell those who desire to visit or settle in our city that it is very healthy for those who are already here, but that one in every six who come here must die, and many will pause ere they take the perilous step. It is certainly very much to be desired that the mortality of the different classes of the community be accurately determined, for this would contribute to a knowledge of the causes of the great mortality of New-Orleans, and would conduce to their removal. At present the interments in the different cemeteries are the only means by which, from the publications of the Board of Health, even a remote approximation to the truth can be made. Until an efficient and proper use is made of the data furnished to the Board of Health—until public attention be aroused to the necessity of more stringent sanitary measures and the enforcement of the collection of more accurate data, the mortality of the different classes of the community, the salubrity of the different parts of the city, and many other questions of interest and importance, must remain unsolved. Our mortality records, even such as



they are, might, however, be so digested as to furnish information upon many points which have not yet been elucidated.

It may be admitted, even without precise statistical details, that the great mortality of this city takes place among the poorer classes of the community, for this has been proved for every locality of which the records have been rigorously examined. There doubtless would be much less difference between the mortality of the prosperous classes here and elsewhere than between that of the poorer classes here and elsewhere. But it must be borne in mind that the latter constitute not only the bulk of the population of every city, but its *most important* and *most valuable element*. Remove from this city to-morrow all who are dependent upon their labor for their daily bread, and how many would be left to enjoy this *salubrious* clime, and what would be their condition? Remove all day-laborers from your levees, your streets, and your warehouses, and let your merchants, commission merchants, &c., &c., undertake the performance of those labors which are indispensably necessary, and would not the mortality of this class be increased? Remove all menials and domestics, send your *ladies* to the wash tub, and let them trudge through the hot sun with a market basket, and would they not speedily fall victims to the same causes that now cut off so many of the poorer classes? Remove from the city all who cannot afford to be buried at the high prices charged by the first class cemeteries, and the number of our population would certainly fall far short of 100,000. Prevent the further ingress of those who may become inmates of the Charity Hospital and tenants of Potters Field, and will New-Orleans increase during the next twenty years, as she has during the preceding, and will her commercial prosperity be promoted? The question is not in what classes of the community the great mortality of New-Orleans occurs, for it may at once be admitted that our great mortality occurs among the poor and among those who have but recently settled among us. The true question is, whether the lives of such are worth anything to the city, and whether the lives of any of these persons can be preserved by the adoption of a proper system of sanatory measures and restrictions. If the honest laborer has done more for New-Orleans than the three millionaires who have died here within the last year, a sentiment quoted approvingly in the eloquent speech of James Robb, Esq., before referred to, then surely the lives of honest laborers are worth preserving for the benefit of the community if not for themselves.

I do not propose the adoption of such a system for the direct protection of the wealthy and prosperous classes, (though they will incidental-

ly be vastly benefited,) for they are able to protect themselves, and generally do so very effectually by removal, during our sickly months, beyond the reach of the operation of the causes of disease here. Feeling the importance of cleanliness for comfort, even if they do not appreciate its necessity as pertaining to hygiene, their dwellings and premises are carefully prevented from adding to the causes of insalubrity so abundant among us, and never become foci of disease. But I call upon these classes to interpose for the protection of those who cannot protect themselves. I appeal to you to endeavor to protect the poor against their own neglect of those measures, which would secure their health and their lives to the city. I appeal to the citizens generally to adopt such sanatory arrangements as will, by reducing our great mortality and preventing the occurrence of epidemics, contribute to the general prosperity of the city, and conduce to its rapid increase by encouraging immigration, and enhancing the value of property greatly beyond the expenditure necessary to render it comparatively healthy.

It is constantly alleged that a very large proportion of the deaths occur among those not natives of New-Orleans or Louisiana, and the records of the Hospital are adduced to show the proportion of admissions of Creoles and foreigners, and the report of the Board of Health for 1849, the only one that has specified the place of nativity of those who died during the year, confirms the statement. The allegation is true, but the inference intended to be suggested to the mind is palpably false and even ridiculous. Can it be possible that our Creoles never die? Unless this be meant, we should like to be told what is intended. The natives of our city must die, and the question is not whether the number of deaths of such is in this city more or less than those of the natives of Asia, &c., but the question is, what is the proportion of deaths of Creoles to the Creole population. Until the number of natives of New-Orleans living in the city is known, the place of nativity of those dying is worth nothing to the statist, except indeed to indicate the mixed character of the population. But let us apply this erroneous rule in a similar manner. The deaths of Creoles are compared with the deaths of natives of all the rest of the world. During the year 1849 there died 774 natives of New-Orleans out of 4,877, or 1 in  $12\frac{1}{2}$  nearly. The population of New Orleans being less than 120,000, the number of natives of New-Orleans living at this moment cannot possibly exceed 100,000; the population of the whole world is not less than 1,000,000,000. The native population of New-Orleans is then 1 in 10,000 of the world, while the deaths are 1 in  $12\frac{1}{2}$  nearly, which shows that the mortality of natives of New-Orleans is eight hundred times as great

as that of the rest of the world. I know that this calculation is absurd, (*reductio ad absurdum*,) but in principle it is as correct as that which would infer the salubrity of New-Orleans from the relative proportions of the deaths of natives and of foreigners.

The average age at death has frequently been appealed to to prove the salubrity of some particular place, but this test is fallacious when taken by itself, though it may be made of some practical value. The age at death must depend upon the ages of those living where the deaths take place, and as this differs so will the average age at death. Suppose that we attempt to compare by this method, the mortality of the Greenwich Hospital, with that of any orphan asylum, and the fallacy becomes very apparent. The former being the receptacle of disabled and superannuated seamen, cannot furnish any death under twenty, and but few under forty years of age, while the latter can only furnish deaths under twenty, and generally under fifteen or ten years of age. The average age at death in the former case must be high—in the latter very low, even though it were vastly more healthy. This is an extreme case, but it only the more plainly shows the error involved in the method. That the constitution of the population, with respect to age, differs much, is very apparent, even on general considerations.

The average age of the living would differ very much in New-Haven by including or excluding the youth collected in its institutions of learning. The average age of the living in Lowell must differ from that in Charleston, S. C., from the difference in the pursuits of the population and the periods of their settlement. If we take the numbers of the living as given by the census, the same thing may be reduced to a mathematical demonstration. The subject cannot here be pursued, but a few results may be stated. Generally, the age of the living in the United States is less than that of European countries, but it is constantly increasing. The age of the living in the newly settled States is less than in the older States. The average age of the living in cities, has generally been considered less than in the country at large, but my examinations indicate the reverse to be the truth.

If the average age of the living were calculated, a comparison with the average age at death would present interesting if not important relations, but the latter cannot alone be used as a test of the hygienic condition of different places.

If this test be erroneous, as has been repeatedly proved before, and as I have now shown, how much more fallacious is the attempt that has been made, to use this test with selected lives for one locality, but with the total deaths for other places. That monumental inscriptions

are selected lives, is apparent from their own results; the average age at death from inscriptions in Potter's field, "being nearly twenty years less than that of the old Catholic" cemetery, and than that of the African cemetery, where the black race are "buried in a style of magnificence nearly equal to the white." "The rude and frail memorials of the dead" poor, giving an average age at death 20 years less than that of those who are able to be buried in a style of magnificence, shows that an average age at death deduced from monumental inscriptions is erroneous when applied to the population at large, inasmuch as it excludes the great bulk of every population the poor. Among the numerous influences that tend to shorten life, poverty is far from being the least important. Of the many ills of poverty, the least important is that it prevents the erection of magnificent mausolea; but if these are to determine the hygiene of a place, then should the city require and furnish the means for a marble slab, that we may know what is our hygienic condition. Monumental inscriptions are neither intended nor suited for the determination of questions in vital statistics. They are intended to perpetuate the memory of those who have distinguished themselves during active life, and can include neither children nor the mass of the people, except to a very limited extent. This is so plain that the very attempt to bolster up the reputation for health of New-Orleans by this means, is in itself a proof of a desperate cause. Go into any cemetery here or elsewhere, and count one hundred or a thousand deaths, noticing the number under five or ten years; then examine the records of the same cemetery, and the difference will be immense.

If New-Orleans be a healthy city, it would be well to point out for the benefit of others the causes of its healthiness. Will it be attributed to its vicinity to the torrid zone, which has been heretofore considered the most unhealthy region of the globe? Can it be due to the crowds of paupers annually poured into the city, whose condition is such as to preclude them from the possibility of taking those hygienic precautions that are necessary to those whose whole life has been passed under a different sky, and surrounded by hygienic conditions altogether different from those existing here? Will it be attributed to the paucity of turbid water eked out by a close corporation: or shall we seek for it in the ~~exposure~~ of organic remains to the decomposing influence of the atmosphere: or perhaps it is due to the combinations of heat, moisture and organic matter, in the act of decomposition. Perhaps the swamps in the rear of the city, or the filth of streets at times almost impassible, or that sanitary police peculiar to New-Orleans, the scraping of the filth from the gutters, and the piling the same in heaps



on the streets to remain until the rain washes it back, when the same is repeated.

New-Orleans has sufficient attractions to admit the truth without detriment to her welfare, and a denial of the truth can be attended with no advantage, for the common sense of mankind enables it to judge correctly of this in spite of all that may be said upon it. At the time that the cholera commenced its ravages in this city, it was crowded with strangers, and notwithstanding the daily assertions of the press that there was no cholera, "only a little belly-ache," in two weeks every one who could leave had departed. The numerous funerals—the hearses running to and fro, enabled the people to know the state of things; and while the denial of the truth benefited none, it has seriously impaired the reliance to be placed upon the reports of the papers, and has, therefore, been decidedly detrimental.

New-Orleans has grown rapidly, not in consequence of assertions that it is healthy, but in spite of the unhealthiness of the locality, and it must still continue to increase in spite of the admission of its unhealthiness. Is it necessary to misrepresent the healthiness of New-Orleans to induce the starving inhabitant of Ireland, the enslaved inhabitant of Poland, the oppressed German or the Hungarian, fleeing from the butcheries of a Haynau, to become residents in this place? Will the unhealthiness of a locality deter the enterprising Yankee or the reckless Southron from coming in our midst? The advantages of New-Orleans as a commercial mart, the extent to which it surpasses every other city in the south and south-west, in facilities for pleasure or profit, and even its unhealthiness by leaving room for employment, must continue to attract hither crowds of immigrants and visitors. It is, therefore, wise no longer to attempt to blind ourselves to the truth, but calmly examining the condition of things, endeavor to improve it.

If it be urged that the years taken as the basis of my calculation, are very unhealthy years, the allegation admits all that I have ever asserted, viz., that so far as I have been able to obtain complete data, New-Orleans has manifestly been the most unhealthy city in the civilized world. But I can reply to the insinuation that other years would prove New-Orleans to be healthy, by calling upon those who make the assertion to produce the facts and figures, and I would rejoice to see produced, from the records of the past, a complete statement of the deaths for a length of time, say five or ten years, which being authenticated by distinctly showing the sources whence it has been obtained, and being compared with a fair estimate of our population, would reduce our average annual mortality to as low a figure as that of New-York during

the same period. I must add that this period has not been selected, but that it has been gradually extended as far back as complete and reliable data could be obtained. It must be remarked, further, that the period embraced in the calculation is chronologically the latest. I have not gone back fifty years to determine the sanitary condition of New-Orleans, as has been done by some, to attempt to prove its salubrity, and if their researches are worth anything, it is that, taken in connection with what I have proved, the health of New-Orleans is getting worse instead of improving, and hence is shown the necessity of an immediate resort to sanatory measures, which will restore to New-Orleans its former salubrity. Although it is possible and even probable that the mortality of a long series of years would be somewhat less than that of the last four, yet I must confess that I am skeptical as to the mortality ever having been as low as some would seem to imagine it. When I see the Mayor and the Board of Health congratulating the citizens on the healthiness of the city during a year (1850) in which there were two epidemics, and the mortality amounted to 6.22 per cent., or 1 in every 16 inhabitants, and on a previous occasion, the same body stating that there had been no epidemic, while, according to a fair application of the very rule it had proposed, there had been one, and in like manner, giving forth pæans to the salubrity of the city during the year 1848, when the mortality was even greater, certainly not less, than that of last year, and only in the aggregate two hundred less than that of the dreadful epidemic year, 1847—when I see a respectable Journal propose to deduct from the deaths actually occurring, those attributed to yellow fever and consumption—when I hear many propose to deduct those not natives, among the deaths, but claim the entire aggregate for the population, I am forced to the following conclusions: That there is a foregone determination to assert the healthiness of New Orleans without looking at the facts; that the mortality is so *frightful* that none have dared to investigate the subject; that the excessive mortality has produced its usual effect, and has rendered the community callous to the loss of human life, the death of the unacclimated exciting no other sensation and eliciting no remark other than that most unfeeling one, that they are “ripe for the harvest.” The failure to examine this subject thoroughly, with a view to the application of remedial measures, has been most unfortunate. Notwithstanding the magnitude of the numerous evils which have befallen New-Orleans, the commercial revulsions, the rottenness of the banking system, the heaviness of taxation, and the squandering and misapplication of the public money, I am assured that not one nor all of them combined have been so injurious to the advance of the city

as the neglect of proper sanitary measures. If the lives of those who have fallen victims to our climate, to their own imprudence, and to the depreciation of the value of human life, had been extended to the term to which they would have attained elsewhere, I have no doubt that our population would have been double that which it is at present. If New-Orleans had possessed as healthy a location as New-York, it would even now have rivalled her in population and wealth. We may estimate the actual loss to our community, from the death and sickness of its inhabitants, but it is impossible to estimate the loss in numbers and wealth of those who have been prevented from settling here by the well known unhealthiness of the city. Tens of thousands of persons and millions of capital have been lost from this cause, and must continue to be lost until efficient measures are adopted to improve our sanitary condition.

I have previously estimated the total loss from sickness and death in New-Orleans, during four and one-third years, and merely added that at least one-half or two-thirds might be considered preventible. I now propose to estimate directly the loss from preventible sickness and death during the *healthy* year 1850. But must first state the principles on which such estimates have been and should be made.

#### AMOUNT OF PREVENTIBLE DEATHS.

Statistical writers have generally based their estimates of the amount of preventible deaths, upon a comparison of the total number of deaths from all causes in different localities. This is evidently not the most correct method, for all must die, and the aim of the sanitary reformer should be to lop off the deaths from those causes known to be preventible, for since it is not possible to attain to the *Euthanasia* of old age, it is at least to be aimed at that deaths should only ensue from those diseases which are due chiefly to inherent defects in the constitution, viz., the sporadic. Estimates of the number of preventible deaths should therefore be based chiefly upon the prevalence of Zymotic diseases and External causes, as these comprehend the most preventible causes. At present, however, we shall follow the custom of other statisticians, stating that were the principles suggested above applied here, the amount of loss from preventible diseases, would be even higher than that given.

#### LOSS FROM PREVENTIBLE DEATHS.

Let us now endeavor to estimate the actual loss to New-Orleans from preventible disease during the healthy year 1850. The average annual

mortality of all England and Wales, is 2 per cent., the rural districts being much less, and the mortality of cities generally greater. Those of her philanthropists who are engaged in the movement in favor of sanitary reform, propose the average of all England (2 per cent.) as the limit which should not be exceeded by any locality : and all above this is considered removable by proper sanatory measures. I shall not venture to assume for New-Orleans so favorable a rate of mortality, but shall take 3 per cent. as a normal mortality for New-Orleans, and all above this is to be considered a sacrifice of life that might be prevented by a rigid and proper application of well established principles of hygiene.

There occurred, then, during 1850, in this city, 3.22 per cent. of preventible mortality, which, on a population of 130,000, would amount to 4,000 lives lost to the city. At an average value of \$400 each, and on 4,000 persons, this would amount to \$1,600,000 of capital sunk last year in this city and Lafayette, by preventible disease. To this must be added the interest of this capital, viz., the value of the labor of the adults who have died. Fully one half of the deaths occur within the productive period of life, viz., from 15 to 60 years, which therefore gives 2,000 deaths of adults. Labor here commanding high wages (from \$12 to \$40 per month), \$200 per annum will be a low average for the value of the labor lost; this amounts to \$400,000, and added to the above will give as the preventible loss during 1850, \$2,000,000 from death alone.

#### COST OF PREVENTIBLE DEATHS.

Four thousand preventible deaths must have caused the expenditure of (at \$15 each) \$60,000.

#### AMOUNT OF PREVENTIBLE SICKNESS.

The amount of preventible sickness is even more difficult to estimate than the total amount of sickness. Playfair estimates the preventible sickness by considering it as bearing the same proportion to the preventible deaths, that the total sickness bears to the total deaths. A writer in the *British and Foreign Medico-Chirurgical Review* objects to this assumption, but himself blunders subsequently into its admission, though he reduces the numerical ratio. Dr. Playfair estimates the preventible sickness as 28 times the preventible deaths. The *British and Foreign Medico-Chirurgical Review* thinks that for all England, the preventible sickness should only be estimated at 20 times the preventible deaths. Mr. Shattuck, in estimating the sickness and deaths in Boston, considers that at least one third is preventible.

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In estimating the amount of sickness from the deaths, it is necessary to take the entire aggregate of each, to collect as fully as possible complete statistics of both, and then calculate the ratio. But in attempting to estimate from the deaths the amount of preventible sickness, we should take into consideration the causes of death, as we have suggested with regard to preventible deaths. It would, therefore, be more correct to base such estimates upon those classes of disease that are known to be preventible. The division of Zymotic diseases and External causes of death should, therefore, as in the case of preventible deaths, form the classes upon which to base such estimates. Although many of the attacks of sporadic diseases may hereafter be found to be preventible, yet as at present their causes are comparatively unknown, and as many, if not the most, of them are due to defects inherent in the organism of the individual, the family or the race, it is safer to estimate the amount of preventible sickness from the other divisions of causes of death. Following, however, at present, the customary estimates, and applying the same rates previously proposed, we have—

#### LOSS BY PREVENTIBLE SICKNESS.

The 2,000 preventible deaths during the laboring period of life, involved 40,000 cases of sickness, and (at 14 days to each case) 560,000 days of labor lost, which was worth (deducting 1-6 for Sundays and holidays), at  $\$ \frac{3}{4}$  per day, \$350,000.

#### COST OF PREVENTIBLE SICKNESS.

The 4,000 preventible deaths indicate 80,000 cases of sickness, and (at 14 days to each case), 1,120,000 days sickness, which, at a cost of \$1 per day, would amount to \$1,120,000.

*Total*

Losses and expenditures\* in New-Orleans during 1850, from preventible deaths and sickness :

Loss of capital sunk, - - - -	\$1,600,000
" labor, - - - - -	400,000
" by preventible death, - - - - -	\$2,000,000
" of labor by preventible sickness, - - - -	350,000
Total loss by preventible disease, - -	\$2,350,000

\* Persons elsewhere may be surprised at the enormous loss here shown: they can judge of the propriety of the losses estimated, and I can assure them that the rates are very moderate for New-Orleans. A decent burial can scarcely cost less than \$100: the interment of a pauper costs ——. I have made no estimate of the expenses of Coroner's inquests, which are more numerous and costly here than elsewhere.

Expenditures by funerals, &c.,	-	-	-	\$60,000
" " sickness,	-	-	-	1,120,000
<hr/>				
" for preventible diseases, &c.,	-	-	-	1,180,000
<hr/>				
Total cost from preventible diseases,	-	-	-	\$3,530,000

I rejoice that New-Orleans has at length aroused from her lethargy, and at the manifestations that have recently been made in favor of internal improvements. But I wish to direct the attention of the public to a subject of vastly more importance to the welfare and success of the city, than all the rail-roads that can be built. The presses of this city have recently stated and truly, that absenteeism is the incubus under which the prosperity of the city has long been retarded, and that the great want of the city is a permanent population. Will a system of rail-roads give us this—will it prevent absenteeism? Not at all; but if you will prevent the recurrence of epidemics—if you will remove the causes of disease, and render the chances of life here as great as elsewhere—if you will snatch from the jaws of the destroying monster the lives annually sacrificed to your neglect of proper sanatory measures, you will more effectually remove the impediments to the progress of New-Orleans, than by the removal from your statute books of all obnoxious restrictions, or by the most extensive system of rail-roads. Let me not be misunderstood or considered as opposed to rail-roads, or undervaluing their importance. On the contrary, none can more ardently desire their rapid extension, for, even passing by their importance in a commercial point of view, I consider them highly conducive to the preservation of human life. In the eloquent speech of the President of the Rail-road Convention, it was shown that the length of life was relatively increased by shortening the time necessarily occupied in going from place to place. I maintain even more; that life, the life-time of the masses of the people, would be absolutely prolonged, and that the aggregate years of life enjoyed by the community would be increased. By means of rail-roads, the invalid who requires change of air can obtain it in a few hours, and at small expense. Rail-roads will enable thousands to enjoy the advantages of city and country combined—they will be able, though daily transacting business in the city, to scatter the residences of their families over a wide area of country, and thus escape the evils of an over-crowded locality. These are advantages to be enjoyed by the prosperous, but the city must still contain a large number of laborers, the mass of whom will be the poor, and it is for these and for those who may prefer a residence in the city, that sanatory regulations are indispensable. While, then, public attention is aroused to

the importance of immediate action upon subjects conducing to the improvement of this great emporium, let not this subject be neglected, for it certainly is not the least valuable of the elements of a city's prosperity, and possesses, in addition, the further claims of humanity and philanthropy.

The following tables, A, B, C, and D, have been very carefully compiled from those published by the Board of Health, and correspond exactly with the details there given, as may be seen more fully in the 2d vol. of Dr. Fenner's Southern Medical Reports, where a more detailed statement is given. The error of the death of two males from diseases peculiar to females, occurs in the original tables, and could not be corrected by me, as it was impossible to know whether the error was in the sex or the disease. Though I have with great labor re-arranged the tables, in order to elicit from them those facts that should be distinctly set forth, in every report from a Board of Health, it is my duty to state, that until radical changes occur in our Board of Health, no dependence can be placed on their publications, except as remote approximations to the truth. The tables are so badly arranged, and their errors are so gross and so numerous, that I feel compelled to make this statement.

Table A.

*A Table of the Deaths in N. Orleans and Lafayette, during the year 1850 : showing for each class of Diseases, the total Mortality, and that of each Season and Month of the Year.*

	Total.	Winter.	Spring.	Summer.	Autumn.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
TOTAL.....	8086																
Uncertain.....	495	106	151	126	112	37	29	40	55	52	44	37	54	35	33	35	44
Omitted.....	272																
Unspecified.....	767																
Specified.....	7319	8086	1748	1404	2011	2156	543	396	809	427	544	433	536	858	617	588	857
A. Zymotic.....	3323	936	514	775	1098	278	126	532	159	195	160	159	333	283	240	493	365
B. Sporadic.....	3586	742	812	1069	964	243	243	254	239	323	249	315	448	306	321	338	305
C. External.....	410	7319	70	79	167	94	20	27	23	29	26	24	62	77	28	27	26
I. Epidemic.....	1013	415			598			415								367	231
II. Endemic.....	2181	482	460	752	487	264	112	106	153	170	137	147	324	281	235	123	129
III. Monoxysmal.....	129	3323	39	54	23	13	14	14	11	6	25	23	12	9	2	5	3
IV. Variable.....	548	99	127	165	157	45	22	32	36	46	45	61	62	42	49	62	46
V. Nervous.....	1068	176	230	409	253	57	63	56	63	90	77	93	197	119	91	92	70
VI. Respiratory.....	908	233	213	198	264	74	77	82	61	92	60	58	79	61	78	92	94
VII. Circulatory.....	71	22	17	16	16	5	7	10	4	6	7	4	8	4	9	7	
VIII. Digestive.....	489	101	117	149	122	30	30	41	43	48	26	51	57	41	41	41	40
IX. Urinary.....	15	6	2	4	3	2	1	3	1	1		2	1	1	1	1	1
X. Of Males.....	1				1												1
XI. Of Females.....	57	7	15	19	16	4	2	1	3	6	6	9	4	6	6	4	6
XII. Locomotive.....	23	5	7	5	6	1	3	1	3	2	2	1	4			2	4
XIII. Integumentary.....	8	2	2	4		1	1		2				1	3			
XIV. Of senses.....																	
XV. Old age.....	74	15	16	17	26	5	6	4	6	8	2	5	6	6	3	7	16
XVI. Still-born.....	324	3586	76	65	83	100	21	31	24	17	24	24	31	29	23	43	30
XVII. Casualties.....	248	28	45	121	54	6	14	8	14	14	17	42	60	9	12	14	28
XVIII. Exopathic.....	33	7	6	10	10	1	3	3	4	1	1	7	2	1	3	2	5
XIX. Esopathic.....	120	32	28	34	26	11	9	12	11	11	6	13	13	8	11	8	7
XX. Treatment.....	9	410	3		2	4	2	1					2		1	2	1
CLASS III.																	
Pertussis.....	13	2	4	1	6		2			1	3			1	3	2	1
Measles.....	57	9	32	12	4	2	3	4	2	19	11	8	4		1	1	2
Scarlatina.....	22	2	11	7	2		1	1		4	7	2	4	1	1		1
Variola.....	36	25	7	3	1	11	8	6	4	1	2	2	1				1
Mumps.....	1	1				1											
Total.....	129	39	54	23	13	14	14	11	6	25	23	12	9	2	5	3	5
CLASS IV.																	
Scrofula.....	13	2	4	3	4	1		1	1	2	1	1	2		1	2	1
Marasmus.....	95	13	27	25	30	6	3	4	10	7	10	7	12	6	9	12	9
Teething.....	137	20	36	49	32	10	4	6	8	12	16	20	17	12	11	9	12
Debility.....	171	29	34	54	54	9	5	15	11	14	9	18	21	15	14	24	16
Dropsy.....	66	18	11	15	22	6	7	5	2	5	4	7	4	4	7	9	6
Other diseases.....	66	17	15	19	15	13	3	1	4	6	5	8	6	5	7	6	2
Total.....	548	99	127	165	157	45	22	32	36	46	45	61	62	42	49	62	46
CLASS V.																	
Apoplexy.....	115	27	19	50	19	7	13	7	4	9	6	11	31	8	8	5	6
Congestion of brain.....	101	8	14	57	22	3	2	3	3	7	5	8	34	15	8	6	8
Cephalitis.....	170	25	45	68	32	4	7	14	12	16	17	24	28	16	7	16	9
Hydrocephalus.....	33	3	16	9	5	3			6	4	6	1	5	3	2	1	2
Epilepsy.....	16	2	4	9	1		1	1		2	2	5	2	2	1		
Convulsions.....	854	50	68	131	105	20	16	14	21	26	21	16	68	47	44	38	23
Carried up.....	879	115	166	324	184	37	39	39	46	63	57	65	168	91	70	66	48



Table B.

A TABLE OF THE DEATHS IN NEW-ORLEANS AND LAFAYETTE, DURING  
THE YEAR 1850:

SHOWING FOR EACH CLASS OF DISEASES, THE TOTAL MORTALITY, AND THAT OF EACH CLASS OF THE  
COMMUNITY, ACCORDING TO COLOR, SEX, AND AGE.

DISEASES.	Total.	WHITES.				COLORED.				Whites.	Colored.	Males.	Females.	Adults.	Children.
		MALES.		FEMALES.		Males.		Females.							
		Adults.	Children.	Adults.	Children.	Adults.	Children.	Adults.	Children.						
TOTAL.....	8086														
Uncertain..... 495		83	146	65	95	21	39	14	32	389	106	289	206	183	312
Omitted..... 272															
Unspecified..... 767															
Specified..... 7319	8086	2630	1154	1236	920	400	336	365	278	5940	1379	4520	2799	4631	2688
A. Zymotic..... 3323		1427	397	710	305	175	93	118	98	2839	484	2032	1231	2430	893
B. Sporadic..... 3586		907	746	483	610	193	235	237	175	2746	840	2081	1505	1820	1766
C. External..... 410	7319	296	11	43	5	32	10	5	355	55	347	63	381	29	
I. Epidemic..... 1013		419	120	207	69	77	31	58	32	815	198	647	366	761	252
II. Endemic..... 2181		995	242	497	195	91	47	59	55	1929	252	1375	806	1642	539
III. Monoxysmal 129	3323	13	35	11	41	7	15	1	11	95	34	70	59	27	102
IV. Variable..... 548		99	151	67	130	27	34	15	25	447	101	311	237	208	340
V. Nervous..... 1068		197	311	78	232	41	89	42	78	818	250	638	430	358	710
VI. Respiratory.. 908		386	54	184	69	68	27	96	24	693	215	535	373	734	174
VII. Circulatory... 71		27	2	13	6	7	4	12		48	23	40	31	59	12
VIII. Digestive.... 689		159	78	78	71	37	26	24	16	386	103	300	189	298	191
IX. Urinary..... 15		8	2	2		1	1	1		12	3	12	3	12	3
x. Of Males..... 1		1								1		1		1	
xi. Of Females. 57		1	1	40	5		9	1	47	10	2	55	50	7	
XII. Locomotive.. 23		10	1		1	5	1	3	2	12	11	17	11	18	5
XIII. Integumen'y 8		3		4				1		7	1	3	5	8	
XIV. Of senses.....															
xv. Old age..... 74		16		17		7	34		33	41	23	51	74		
xvi. Still-born.... 324	3586		146		96		53	29	242	82	199	125		324	
XVII. Casualties.... 248		174	10	22	5	21	7	5	4	211	37	212	36	222	
XVIII. Exopathic ... 33		20	1	5		4	1	1	1	26	7	26	7	30	3
XIX. Esopathic.... 120		96		14	11		4		110	10	102	18	120	26	
XX. Treatment... 9	410	6		2	1				8	1	7	2	9		

A

Table B.---[Continued.]

## A CLASSIFIED TABLE OF DEATHS IN NEW-ORLEANS, ETC.

DISEASES.	Total.	Winter.	Spring.	Summer.	Autumn.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
CLASS XIV.																	
Of Senses.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
CLASS XIV.																	
Old Age.....	74	15	16	17	26	5	6	4	6	8	2	5	6	6	3	7	16
CLASS XVI.																	
Still-born.....	324	76	65	83	100	21	31	24	17	24	24	31	29	23	43	30	27
CLASS XVII.																	
Casualties.....	53	9	13	11	20		7	2	6	4	3	4	2	5	5	3	12
Sun-stroke.....	68	—	5	63							5	19	42	2			
Drowned.....	97	11	23	45	18	4	3	4	8	8	7	18	15	12	7	8	3
Burns and Scalds..	30	8	4	2	16	2	4	2		2	2	1	1			3	13
TOTAL.....	248	28	45	121	54	6	14	8	14	14	17	42	60	19	12	14	28
CLASS XVIII.																	
Wounds.....	19	2	2	7	8		1	1	1	1		5	2		1	2	5
Suffocated, &c.....	7	4	2		1	1	2	2	2						1		
Poisoned.....	7	1	2	3	1	1			1		1	2		1	1		
Total.....	33	7	6	10	10	1	3	3	4	1	1	7	2	1	3	2	5
CLASS XIX.																	
Delirium Tremens	72	19	20	20	13	5	5	4	9	5	3	6	7	7	6	4	3
Intemperance.....	31	8	5	10	7	4	3	1	1	2	3	4	5	1	1	2	4
Syphilis.....	7	3	1	1	2	1		2	1				1		2		
Suicide.....	10	2	1	3	4	1	1			1		3			2	2	
Total.....	120	32	28	34	26	11	5	12	11	11	6	13	13	8	11	8	7
CLASS XX.																	
Treatment.....	9	3		2	4	2	1						2	1		2	1

Table C.

*A classified table of the causes of death in New-Orleans and Lafayette, during 1850, showing for each disease and class of diseases, the total mortality, that of each season of the year, and of each class of the community, according to color, sex and age.*

DISEASES.	TOTAL.	WINTER.	SPRING.	SUMMER.	AUTUMN.	WHITES.	COLORED.	MALES.	FEMALES.	ADULTS.	CHILDREN.
CLASS I.											
Cholera.....	1013	415			598	815	198	647	366	761	252
CLASS II.											
Cholera.....	504	157	181	65	101	430	74	315	189	415	89
Diarrhoea.....	290	75	77	54	84	255	35	189	101	219	71
Dysentery.....	338	71	67	91	109	297	41	211	127	229	109
Fevers.....	893	134	89	520	150	830	63	580	313	765	128
Erysipelas.....	10	1	2	2	5	9	1	8	2	8	2
Influenza.....	36	18	10	3	5	11	25	17	19	5	31
Thrush.....	4		3	1		4		2	2		4
Cholera Infantum.....	73	11	25	13	24	64	9	36	37		73
Croup.....	33	15	6	3	9	29	4	17	16	1	32
Total.....	2181	482	460	752	487	1929	252	1875	806	1642	539
CLASS III.											
Pertussis.....	13	2	4	1	6	7	6	3	10		13
Measles.....	57	9	32	12	4	46	11	32	25	1	56
Scarlatina.....	22	2	11	7	2	19	3	6	16	5	17
Variola.....	36	25	7	3	1	23	13	28	8	20	16
Mumps.....	1	1					1	1		1	
Total.....	129	39	54	23	13	95	34	70	59	27	102
CLASS IV.											
Scrofula.....	13	2	4	3	4	8	5	7	6	6	7
Marasmus.....	95	13	27	25	30	82	13	54	41	23	72
Teething.....	137	20	36	49	32	109	28	76	61		137
Dobility.....	171	29	34	54	54	149	22	90	81	73	98
Dropsy.....	66	18	11	15	22	47	19	38	28	55	11
Other diseases.....	66	17	15	19	15	52	14	46	20	51	15
Total.....	548	99	127	165	157	447	101	311	237	208	340
CLASS V.											
Apoplexy.....	115	27	19	50	19	86	29	79	36	111	4
Congestion of brain...	101	8	14	57	22	83	18	69	32	71	30
Cephalitis.....	170	25	45	68	32	115	55	105	65	60	110
Hydrocephalus.....	33	3	16	9	5	31	2	18	15	3	30
Epilepsy.....	16	2	4	9	1	12	4	11	5	13	3
Convulsions.....	354	50	68	131	105	295	59	194	160	24	330
Carried up.....	875	115	166	324	184	622	167	476	313	282	507

Table C.—[Continued.]

DISEASES.	TOTAL.	WINTER.	SPRING.	SUMMER.	AUTUMN.	WHITES.	COLORED.	MALES.	FEMALES.	ADULTS.	CHILDREN.
Brought up,-----	879	115	166	324	184	629	467	476	313	282	507
Tetanus,-----	71	19	18	15	19	53	18	43	28	43	28
Trismus Nascentium,--	163	36	29	57	41	114	49	99	64		163
Paralysis,-----	19	3	7	5	4	13	6	8	11	18	1
Other diseases,-----	26	3	10	8	5	16	10	12	14	15	11
Total,-----	1068	176	230	409	253	818	250	638	430	358	710
CLASS VI.											
Laryngitis,-----	11		3	7	1	8	3	6	5	8	3
Bronchitis,-----	39	14	9	7	9	23	16	20	19	16	23
Pleurisy,-----	17	6	6	2	3	8	9	10	7	17	
Pleuro-pneumonia,---	10	5	2		3	8	2	6	4	7	3
Pneumonia,-----	121	36	31	27	27	91	30	60	61	71	50
Consumption,-----	681	167	156	144	214	532	149	418	263	588	93
Other diseases,-----	29	5	6	11	7	23	6	15	14	27	2
Total,-----	908	233	213	198	264	693	215	535	373	734	174
CLASS VII.											
Circulatory,-----	71	22	17	16	16	48	23	40	31	59	12
CLASS VIII.											
Gastritis,-----	29	3	10	10	6	20	9	20	9	25	4
Gastro-enteritis,-----	105	26	25	27	27	79	26	58	47	67	38
Enteritis,-----	183	32	38	61	52	145	38	103	80	76	107
Colic,-----	15	1	5	6	3	14	1	13	2	9	6
Worms,-----	10	3	3	2	2	6	4	6	4		10
Ascites,-----	39	12	6	9	12	37	2	28	11	37	2
Peritonitis,-----	18	2	5	7	4	16	2	7	11	13	5
Other diseases,-----	28	5	11	5	7	19	9	17	11	16	12
Hepatitis,-----	15	6	1	5	3	14	1	13	2	10	5
Jaundice,-----	35	11	9	10	5	26	9	23	12	33	2
Diseases of Liver,---	8		4	3	1	6	2	8		8	
“ Spleen,---	4			4		4		4		4	
Total,-----	489	101	117	149	122	386	103	300	189	298	191
CLASS IX.											
Urinary,-----	15	6	2	4	3	12	3	12	3	12	3
CLASS X.											
Of males,-----	1				1	1		1		1	



Table C.--[Continued.]

DISEASES.	TOTAL.	WIN	SPRING.	SUMMER.	AUTUMN.	WHITES.	COLORED.	MALES.	FEMALES.	ADULTS.	CHILDREN.
CLASS XI.											
Child-birth.....	17	1	3	7	■	13	4		17	17	
Puerperal disease.....	19	2	4	9	4	18	1		19	13	6
Other diseases.....	21	4	8	3	6	16	5	2	19	20	1
TOTAL.....	57	7	15	19	16	47	10	2	55	50	7
CLASS XII.											
Rheumatism.....	16	4	5	4	3	6	10	11	5	12	4
Other diseases.....	7	1	2	1	3	6	1	6	1	6	1
TOTAL.....	23	5	7	5	6	12	11	17	6	18	5
CLASS XIII.											
Integumentary.....	8	2	2	4		7	1	3	5	8	
CLASS XIV.											
Of Senses.....	—	—	—	—	—	—	—	—	—	—	—
CLASS XV.											
Old Age.....	74	15	16	17	26	33	41	23	51	74	
CLASS XVI.											
Still-born.....	324	76	65	83	100	242	82	199	125		324
CLASS XVII.											
Casualties.....	53	9	13	11	20	48	5	46	7	48	5
Sun-stroke.....	68		5	63		67	1	58	10	68	
Drowned.....	97	11	23	45	18	77	20	90	7	87	10
Burns and scalds.....	30	8	4	2	16	19	11	18	12	19	11
TOTAL.....	248	28	45	121	54	211	37	212	36	222	26
CLASS XVIII.											
Wounds.....	19	2	2	7	8	15	4	19		18	1
Suffocated, &c.....	7	4	2		1	5	2	3	4	5	2
Poisoned.....	7	1	2	3	1	6	1	4	3	7	
TOTAL.....	33	7	6	10	10	26	7	26	7	30	3
CLASS XIX.											
Delirium Tremens.....	72	19	20	20	13	68	4	66	6	72	
Intemperance.....	31	■	6	10	7	28	3	25	6	31	
Syphilis.....	7	3	1	1	2	5	2	5	2	7	
Suicide.....	10	2	1	3	4	9	1	6	4	10	
TOTAL.....	120	32	28	34	26	110	10	102	18	120	
CLASS XX.											
Treatment.....	9	3		2	4	8	1	7	2	9	

**Table D.**—Showing the AGE of those who died in the Cities of New-Orleans and Lafayette, in 1849 and 1850, as shown by the Tables accompanying the Reports of the Board of Health.

1849.										1850.										1849.										1850.										1849 AND 1850.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
AGES.	WHITE.				COLORED.				TOTAL.	WHITE.				COLORED.				TOTAL.	TOTAL.				TOTAL.	WHITES.				COL'D.				MALES.	FEMS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
	MALES.		FEMALES.		MALES.		FEMALES.			MALES.		FEMALES.		MALES.		FEMALES.			MALES.		FEMALES.			MALES.		FEMALES.		MALES.		FEMALES.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Under 1 month.	300	179	74	65	267	153	61	49	618	530	1148	899	249	702	446	1 month a 1 year.	248	225	84	57	332	276	105	90	614	803	1417	1081	336	769	648	1 year a 5 " "	367	336	98	102	384	340	105	88	903	917	1820	1427	393	954	866	5 " a 10 " "	154	117	36	35	109	88	26	26	342	249	591	468	123	325	266	10 " a 15 " "	255	139	78	58	{ 52	45	15	14	{ 530	{ 126 }	935	723	212	547	388	15 " a 20 " "	220	135	87	61	784	419	83	56	1991	1342	3333	2990	343	2345	988	20 " a 30 " "	1352	435	126	78	756	318	67	51	1603	1192	2795	2529	266	2035	760	30 " a 40 " "	1125	330	87	61	405	133	34	43	833	615	1448	703	561	142	462	241	40 " a 50 " "	561	159	54	59	184	71	28	38	382	321	703	383	100	238	145	50 " a 60 " "	222	84	28	48	90	54	27	20	192	191	383	201	66	91	110	60 " a 70 " "	102	37	19	34	32	34	8	26	101	100	201	92	42	50	35	70 " a 80 " "	38	31	13	19	9	11	7	17	48	44	39	9	30	31	80 " a 90 " "	8	14	11	15	1	3	4	1	20	19	39	4	4	1	3	90 " a 100 " "	1	4	2	13	1	3	4	1	3	1	4	1	3	3	Over 100 "			1	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

\* Including those of whom the sex and color is also unknown.

**Table E,**

*Showing the number of Passengers that arrived at New-Orleans, from foreign ports, during each month and quarter of the years named.*

	1845.	1846.	1847.	1848.	1849.	1850.
January,	2,376	1,832	2,423	3,112	1,214	
February,	358	882	3,479	2,097	1,518	
March,	616	1,738	1,044	1,522	7,518	
April,	1,337	15,71	2,172	1,936	3,268	
May,	1,026	1,964	5,103	4,752	1,720	
June	1,927	1,485	4,488	2,337	1,306	
July,	368	843	2,112	740	902	
August,	100	506	584	264	398	
September,	352	219	345	271	162	
October,	1,936	3,071	968	1,672	2676	
November,	7,495	2,849	6,984	6,393	6,267	
December,	1,677	6,113	5,016	1,838	1,562	
Winter,	3,350	4,452	6,946	6,731	10,250	11,392
Spring,	4,290	5,020	1,1763	9,025	6,294	7,362
Summer,	820	1,568	3,041	1,275	1,462	2,607
Autumn,	11,108	12,033	12,968	9,903	10,505	17,022
Total,	19,568	23,073	34,718	26,934	28,511	38,383

**Table F,**

*Showing the number and proportion for each month, of the Passengers that arrived at New-Orleans, from foreign ports, during five years, from 1845 to 1849.*

January,	-	-	-	10,957	-	-	-	8.25
February,	-	-	-	8,334	-	-	-	6.27
March,	-	-	-	12,438	-	-	-	9.36
April,	-	-	-	10,284	-	-	-	7.74
May,	-	-	-	14,565	-	-	-	10.96
June,	-	-	-	11,542	-	-	-	8.69
July,	-	-	-	4,965	-	-	-	3.73
August,	-	-	-	1,852	-	-	-	1.39
September,	-	-	-	1,349	-	-	-	1.05
October,	-	-	-	10,323	-	-	-	7.77
November,	-	-	-	29,988	-	-	-	22.58
December,	-	-	-	16,206	-	-	-	12.20
Total,				132,804				100.

**Table G,**

*Showing the number and proportion, for each quarter, of the Passengers that arrived at New-Orleans, from foreign ports, during six years, from 1845 to 1850.*

Winter,	-	-	43,121	-	-	25.2
Spring,	-	-	43,754	-	-	25.6
Summer,	-	-	10,773	-	-	6.3
Autumn,	-	-	73,539	-	-	42.9
			<hr/>		<hr/>	
Total,	-		171,187	-	-	100.

**Table H,**

*Showing the number of deaths in New-Orleans and Lafayette, during each month and season for the years 1849 and 1850, and the total and proportion for the two years: Cholera, ~~which was epidemic~~, being omitted, but added below with the deaths at unknown periods.*

	1849.	1850.	Total.	Proportion.
January,	541	580	1,121	8.20
February,	375	425	800	5.85
March,	550	434	984	7.19
April,	548	482	1,030	7.53
May,	482	596	1,078	7.89
June,	538	477	1,015	7.42
July,	434	573	1,007	7.37
August,	486	912	1,398	10.22
September,	666	652	1,318	9.64
October,	911	621	1,532	11.20
November,	712	525	1,237	9.04
December,	631	524	1,155	8.45
<hr/>				
Winter,	1,466	1,439	2,905	21.24
Spring,	1,568	1,555	3,123	22.84
Summer,	1,586	2,137	3,723	27.23
Autumn,	2,254	1,670	3,924	28.69
<hr/>				
Total,	6,874	6,801	13,675	100.00
<hr/>				
Cholera,	2,988	1,013	4,001	
Unknown,	799	272	1,071	
<hr/>				
Total,	10,661	8,086	18,747	

*white*



**Table I.***Admisssons to the Marine Hospital at New-Orleans.*

	1849.	1850.	1851.
January,	56	115	83
February,	62	81	106
March,	66	55	98
April,	64	84	
May,	81	75	
June,	67	70	
July,	66	65	
August,	70	90	
September,	83	97	
October,	107	93	
November,	102	99	
December,	103	86	
Winter,	184	251	287
Spring,	212	229	
Summer,	219	252	
Autumn,	312	278	
Total,	927	1,010	574

**Table K**  
*Number of admissions to the New-Orleans Charity Hospital, with the total and the proportions during each month and season for seven years.*

	1844.	1845.	1846.	1847.	1848.	1849.	1850.	TOTAL.	PER CENT.
January, . . . . .	377	477	520	717	1,182	1,069	1,678	6,020	7.73
February, . . . . .	357	378	431	558	1,046	926	1,163	4,859	6.24
March, . . . . .	350	357	479	620	744	1,318	1,276	5,144	6.60
April, . . . . .	320	382	495	740	573	1,107	909	4,526	5.81
May, . . . . .	357	403	530	926	655	1,234	905	5,010	6.43
June, . . . . .	363	452	586	1,216	656	941	978	5,192	6.67
July, . . . . .	520	625	649	968	914	1,034	1,647	6,357	8.16
August, . . . . .	584	513	735	1,656	1,411	1,387	2,685	8,971	11.52
September, . . . . .	697	682	923	1,105	1,353	1,810	2,431	9,006	11.55
October, . . . . .	727	659	984	826	1,015	1,857	1,767	7,835	10.06
November, . . . . .	637	609	929	1,227	948	1,448	1,420	7,218	9.27
December, . . . . .	557	599	783	1,331	1,448	1,427	1,617	7,762	9.96
Winter, . . . . .	1,084	1,212	1,430	1,895	2,972	3,313	4,117	16,023	20.57
Spring, . . . . .	1,040	1,237	1,611	2,882	1,884	3,282	2,792	14,728	18.91
Summer, . . . . .	1,801	1,820	2,307	3,729	3,678	4,231	6,763	24,329	31.23
Autumn, . . . . .	1,921	1,867	2,696	3,384	3,411	4,732	4,804	22,815	29.29
Total, . . . . .	5,846	6,136	8,044	11,890	11,945	15,558	18,476	77,895	100.

I have now given the results of a very thorough examination of the mortuary statistics of New-Orleans, and the mortality has been shown to be double or even treble that of other cities. I have examined the *causes usually assigned* for this great mortality, and have shown that they are not sustained by the facts. The beneficial results of sanitary reform elsewhere, have been indicated, and an extended extract has given the views now entertained in England on this subject. I have shown the immense loss sustained by the city in consequence of its sanitary condition, and have thus demonstrated the importance—nay, the indispensable necessity, of the bestowal of more attention to this subject than it has heretofore received, for thus, only, can be determined the *true causes* of this excessive mortality. The data for the determination of this most important question not having been published are, at present, only in possession of the Board of Health. By a rigorous analysis of these data, it would be possible to ascertain, definitely, the mortality properly our own, the *special causes* of our apparently large mortality, and the measures to be adopted for their removal. A reference to the several successive annual reports of the Board of Health, will show the existence here of many causes of disease, of which it has in vain urged the removal. Dr. Barton's very elaborate paper, read before the State Medical Society, also points out the causes of disease and suggests hints for the improvement of our sanitary condition, worthy the attention of the authorities and of the citizens.

Perhaps the most effectual means that can be adopted in the present state of things, would be the formation of a voluntary health association, which would concentrate and unite the labors of those individuals whose philanthropy would induce them to engage in undertaking, first, to ascertain the truth with regard to our sanitary condition; next, to inform the community upon the subject, and, finally, to urge those measures that might be deemed advisable. The movement in favor of sanitary reform in England was started in this way, and voluntary associations have contributed most essentially to determine truly, and to improve, the sanitary condition of various places. The publications of the Health of Towns' Association are constantly referred to as of peculiar value, and are quoted even in official documents. Such an association here might publish cards to be distributed on board of every ship on its arrival, warning immigrants and strangers of the dangers to which they are exposed, pointing out the cautions to be observed, and especially the necessity of prompt medical assistance. We now have a most worthy voluntary society in the Howard Association, but its labors are confined to assistance rendered the sick during the existence of epidem-



ics. Might it not be made a health association, and become more active at all times in investigating and removing the causes of disease?

A sanitary commission should be appointed by authority of the Councils of New-Orleans and Lafayette, to examine fully into the hygienic condition of the city, including in its investigations the internal police of the hospitals, asylums, workhouses, and all public institutions; the condition of the poor and their dwellings; the supply of water; the various factories of gas, chemicals, etc.; the butcheries and dairies; the supplies of milk and bread; in fact, a complete and thorough survey of every thing pertaining to the sanitary condition of the city. The expenditure of \$5,000 or \$10,000 in such a survey would probably save the city hundreds of thousands of dollars in the form of its most valuable property, the lives of its citizens.

It is true that the grand jury examines into these matters, but as such bodies do not consist of persons specially selected for this purpose, they are not in general qualified for these investigations; they can only discover the most glaring evils; and the fact that some have been pointed out, shows that there are numerous others that might be discovered.

Having now completed, as far as practicable, this subject, and having submitted it to the public, it remains for it to determine whether farther researches are needed; whether it will contentedly acquiesce in the continuance of such losses, or whether it will require a complete sanitary survey and a thorough investigation into the causes of disease existing here. I need only add my firm conviction that such an investigation will as certainly point out here removable causes of disease, as it has done elsewhere. If public attention be directed to the subject, this investigation will be made; but as long as the necessity for it is not perceived, it will not be commenced.



